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The FARM-POULTRY

semi Monthly

VOL. 10.

BOSTON, MASS., MAY 15, 1899.

No. 10.



SOUTH END OF EAST SECTION OF ATLANTIC FARM.

A. J. Hallock, Proprietor, Speonk, L. I., N. Y.

Now Keep the Chickens Growing.

Most of us are done, or soon will be done, hatching, and it is timely to consider the growth of the stock. It is very important that the chickens be kept growing, that they do not stand still, nor take a step backward in their steady progress toward maturity. Many people neglect the chickens after they get old enough to be weaned from the mother hen, or taken from the brooder. They take every pains with them for the first few weeks, and the chickens grow finely, but after a little the owners seem to think no further pains are necessary, or they grow tired and relax their zeal, and the result is that the chickens get irregular feeds, or short rations, or are left in filthy coops, and the result is unfortunate.

The matter of cleanliness of coops is one of the most important. It is the greatest possible mistake to leave chickens in coops where night after night the droppings are left to accumulate, possibly a dead chicken left until it is positively rotten and wormeaten, and other unhealthy conditions. Chickens that are left to sleep night after night in a filthy coop cannot possibly grow; they are poisoned by the effluvia of the droppings, which poison enters the blood through the lungs, and the whole system is lowered in tone, is debilitated by it. It is a simple matter to keep coops clean if they do not have wooden floors—and the floorless coop is much preferable where the laud is reasonably dry. Such a coop is quickly cleaned by moving it forward, or backward, or eudwise, to new ground, and if this is done three times a week when the chickens are small, and every day when the chickens are half grown, there will be no difficulty with filthy coops. If the coops have floors they (the floors) should be scraped clean and well sanded three times a week. Take care, too, to thin out the chicks as they increase in size. A coop, or brooder, which was amply large for a family of three or four weeks old chicks will be too small for them when they are six or eight weeks old, and are twice the size. Many promising chicks are lost by "smother-

ing," through the coop being overcrowded, simply because the chicks had grown to double the size of three weeks before. The point is well illustrated by the letter published in another column, in which the writer tells us he has lost a good many chicks by smothering, through trying to raise them in a "so-called" 200-chick brooder. If he had read F.-P., he would have known better than to put two hundred chicks in any brooder.

Another most important point is the food ration. A very common mistake is to think that chicks can find a good deal of their food themselves. They do find some in the shape of worms, insects, etc., and they eat a good deal of grass, but regular feeds of sound sweet grain are what they should have to induce steady growth. When our chickens are five or six weeks old we relax in feeding in two ways. We feed but four times a day instead of five, and the first feeding in the morning is of mixed meals stirred up into a mash mixed with milk or water. This mixed meal consists of one part each corn meal, fine middlings, bran or shorts, ground oats, and meat meal. This is equal parts by measure. A scoop of each is dipped into the bag, from which it is put into the bin or trough in which it is moistened for the feeding. Some people prefer a greater proportion of bran, and advocate two scoops of it to one of each of the others. We use judgment as to the amount of the bran, limiting it by the whole amount which we feed, and the conditions of the bowels of the chicks. If the bowels are inclined to be loose we increase the quantity of middlings, and decrease the quantity of bran. If the bowels are somewhat constipated (the droppings too firm and hard) we increase the quantity of bran, and proportionately decrease the quantity of middlings.

Animal food is a most essential element for promoting growth in chicks. Of course where only two or three broods are raised and allowed to range freely, they will get a supply of insects, worms, etc.; but most of the readers of this paper raise more than two or three broods of chicks, and very, very few

readers give their chicks absolutely free range; and the conditions have to be considered. The point is well illustrated in the article, "Will Poultry Thrive on Grain Alone?" quoted from bulletin No. 149, of the New York agricultural experiment station, found on page 178, May 1st F.-P. Under the heading, "Results With Chicks," it reads:—

"In each trial more food was eaten by the lot receiving animal protein, the gain in weight was more rapid, and maturity was reached earlier; less food was required for each pound of gain, and the cost of gain was less."

Could there be a more convincing summing up of the case than those sentences contain? More food was eaten, gain in weight was more rapid, maturity reached earlier, and cost of gain was less—what a volume of chicken wisdom is there. At the same time "maturity" should not be reached too early; if it is reached too early it is premature, and then sturdiness of frame is lacking. We should aim to feed a balanced ration, to the end that growth be continuous, and not too rapid. To this end animal food, (animal protein), is essential, but it should be balanced by muscle builders and bone makers. The commercial meat meals contain about thirty per cent of bone, so that element is provided in the animal food supply; and for muscle building there is nothing to equal oat meal, which we so strongly recommended in the article, "How We Hatch and Raise Chickens," page 113, March 15th F.-P.

Many letters which have come to us since that article was last printed, indicate that some people don't understand what "oat meal" is; very many think it is oats ground hulls and all. The oat meal we feed our chicks is oat meals cut in two or three pieces each by sharp knives; that is the coarsest oat meal made, and it is just such oat meal as we cook for eating at table. Not a few poultrymen feed "rolled oats," which is good, no doubt, but the grain is crushed in rolling, and that breaks up the cells, exposing them to the air. Oats ground hulls and all we would think a poor food for chicks, the hulls (fibre)

being innutritious and hard to digest. Then, too, there is an immense difference in the amount of fibre carried in commercial oats. We are fortunate in being able to buy a splendid quality of oats, weighing forty-one to forty-two pounds to the bushel, and they are "clipped;" a handful of them feels "heavy" when lifted, and comparing them with some samples of cheaper (and lighter) oats, shows that the latter contain a considerable proportion of meatless hulls, (blighted grain), and those greatly increase the quantity of fibre in ground oats.

Don't hesitate to buy good oat meal to feed to chicks; it pays, and pays well, by promoting growth of muscle and body, and we must get sturdy frames if we would have great laying ability in the flocks.

While discussing this question of animal food and body building, we should not overlook cut fresh bone. Meat meal and beef scraps are both good, but cut bone which is fresh is much superior, and the chicks do so enjoy it. It is true it takes time and muscle to cut bones, but it is time and muscle well expended, and produces the best of results in growth of chicks. So great is our faith in cut fresh bone we have a hundred pounds a week (fifty pounds at a time), sent out from the city, and give the chicks a grand feed of it twice a week.

We are strongly opposed to feeding damaged grain or damaged food of any kind, and we think that chicken raisers who expect their chickens to make good growth when fed on damaged food, make a serious mistake. There is a strong temptation to economize in this direction, especially when the chickens' appetites seem to be almost unappeasable, and grain bills are piling up without corresponding credits on the other side of the account. At such a time an offer of burnt wheat, or mouldy cracked corn, at a less price, is a strong temptation, but it is a temptation that should be resisted. Another thing we should guard against is allowing cracked corn to get mouldy on our hands; and in hot weather it will sometimes get mouldy or musty in a few days after being cracked. It is wise, in warm weather, especially in dog days, to buy but a few days supply of cracked corn at a time.

Clear sharp grit is another most essential requisite for keeping the chickens growing. Some chickens are raised on ground which has been gone over for a dozen or a score (or maybe fifty) years by successive generations of chickens, and so for a long time has been bereft of grit. If the owners of such chickens should stop and think how essential their teeth are to them, or the grit is to chickens, they would certainly start about providing a supply at once. Keep a pan of sharp grit accessible to them; it is just as necessary as fresh drinking water, especially if we would have them digest and assimilate the food they eat. Grit is to chickens and fowls what teeth is to human beings, and without grit the chickens cannot grind up the food they eat,—and the grinding of the food is the first step toward the assimilation of it.

Shade is another most important consideration. An orchard which furnishes patches of sunlight and patches of shade, with reasonably free circulation of air, is the very best place possible in which to raise chickens for breeding stock. The conditions in an orchard seem to be exactly right. Not having an orchard on our farm, we furnish a substitute in the shape of shelter boards, and these are both



GRAY AND WHITE INDIAN RUNNER DUCKS.

Bred by A. J. Hallock, Speonk, L. I., N. Y.

[One of this trio laid 118 eggs in 121 days].

shade from the sun and shelter from the rain. It is an object lesson to watch the flocks of chickens as they stretch themselves in the protection of these shelter boards to get out of the scorching sun, or find protection from the pouring rain. Anyone who will watch a flock of chicks thus protected with artificial shelter boards will quickly be impressed with the value of them.

Dr. Woods, on page 185 of May 1st F.-P., advises against shifting the quarters of the growing chicks. He says:—

"It does not pay to be continually shifting chicks from one place to another. Shifting the quarters of growing chicks often means a checking of growth until such time as the chicks become wonted to their new quarters."

We do not altogether agree with this advice, and on our farm the chicks are moved to new quarters and fresh ground three times at least. We group our brooders, (which are enclosed in pens some twenty or twenty-five feet square), close about our poultry buildings. When the chicks are old enough to wean from the brooders, they are moved out into the field, and spread over a grassy knoll which is set with young apple and peach trees. As soon as the grass is cut in the mowing fields the pullets are separated from the cockerels, and the pullets are put out in colonies in the grass fields, the roosting coops, (described in March 15th number), being set about one hundred and fifty feet apart. We never have observed any checking of growth from this shifting of location or change of quarters. The moving is always done after dark, and the chicks get up the next morning quite ready to "rustle" their breakfast, and fully appreciative of their fresh ground. We don't want the little chicks out in the grass fields when they are little; it would involve no end of bother and trampling through the growing grass to feed and care for them. We do want the pullets out in the grass fields after the grass has been cut off, hence we shift both quarters and location, and think the results justify the moving.

Separate the pullets from the cockerels. Not doing this is one of the most common mistakes in chicken raising. Unless one has carefully watched the growing youngsters, he will have no idea of the constant nagging and annoying on the part of the cockerels. It seems sometimes as though "the very old boy possessed them." It has been proved by experiment that the pullets will not only grow better, but they will reach maturity from one to three months earlier if the cockerels are kept separate from them. Since the pullets are the most important members of the family it is our custom to give them the full range of the farm, colonizing them in families of twenty-five or thirty, in coops set one hundred and fifty to two hundred feet apart, out in the grass fields as soon as the crop of grass is cut off, by which means we give the pullets every opportunity to grow. The cockerels which we wish to save for breeding stock are enclosed in large yards, of a quarter of an acre or thereabouts, near the farm buildings. The cull cockerels intended for market are shut up in fattening pens, and sent to market as soon as they are of marketable size, which with us is four to five pounds live weight. We believe in sending the birds to market as soon as possible. We do not want to keep them a single day after that.

It will be realized that the prominent thought with us is pullets for laying stock, and we make that our chief aim. Everything else is subordinate to that on our farm. We want the pullets to reach laying maturity at about six months old, and not only to reach laying maturity at that age, but to be fully grown, strong, healthy, and vigorous. Not every chicken hatched can be grown to this condition under the most favorable circumstances, but it is our aim, and it should be the aim of every one who raises chickens, to get the best possible growth in the young stock, because that is the foundation of profit. We have stated over and over again in these columns that the best profit, the "creamy" profit, was got from early hatched chickens kept growing so they should reach laying maturity before the cold weather, and then kept laying. There is an old proverb, "Well begun is half done," and it is particularly true as regards chickens when hatched, and that come out, as Mr. Pollard expresses it, "with a kick." They are well begun, and that is half the battle; but we should keep it in mind that it is only half, and that there is that other half to be stoutly worked for. We give the best possible chance to the pullets which we want to be early layers, and keep them steadily growing to that end, which should be attained long before cold weather comes upon them; and this we find we can best attain by good care for cleanliness, etc., and feeding a liberal ration of sound sweet grain.

It is easy to see that it is of the utmost importance for the chickens to be kept growing.

Disinfecting.

As the warm weather comes, the tendency is to throw open the openings of the poultry department, and let in the fresh air to disperse the impure air of the buildings which has accumulated during the time they have been kept closed. It is all right to let the pure air in and to rarify the impure air of the interior of the buildings, but this may not be all that is necessary. The warm weather may reveal odors which did not seem apparent when the weather was colder, and some of them may be intensified as the days become warmer.

The way to best get rid of all bad odors and impure air of the poultry department is to disinfect them, and no better substance can be employed in this than a generous supply of whitewash. It is not only the best way, but it is the cheapest. To make it do its best it should be used without stint on the inside and on the ceiling, on the nest boxes, and on the roosts, and the floor may have some of it without doing any injury to it. What would be better for the floor will be airslaked lime.

The roosting place and the yards may be sprinkled generously with a solution composed of copperas. This drug is very cheap, and it dissolves readily in water. A very good way to apply this is by the use of a sprinkling can. It will kill a bad odor at once, and is also fatal to disease germs. Do not be satisfied with plenty of pure air, but disinfect the premises. Pure air is good, but the bad air wants to be made good or made harmless.—*Homestead, Iowa.*

The Value of Standards.

The question is very often asked, whether arbitrary standards are not a hindrance rather than a help in the production of animals for the supply of food—and we propose now to discuss this subject. That the question is a reasonable one no one can doubt who has inquired into the matter, for it is apparent that in some cases the perfection in one point given prominence to in standards, has led to a weakening of the economic qualities; but we hope to show ere we have done that this is not the fault of the standard, but of its application. If a man likes to run any system to death, he, and not the system, must be blamed for the result. Use is not abuse, nor abuse use. This is a fact that in all such considerations as the present ought to be kept in mind.

The object of the formation and application of all standards ought to be the perfection of some qualities that are sought to be perfected. These qualities may be merely ornamental, or they may be useful. In this respect nature is the great teacher, and we find her standards expressed in all varieties of plant and animal life. They are unwritten, it is true, but are none the less there; and in each case is some defined object if we could but discover it. Darwin has taught us that for every plant and animal, however strange it may be, however peculiar its appearance or its "points," there is an object, and its variations are not without a real purpose. If this be so with animals in a state of nature, it is equally so with those brought under the direct influence of man by domestication. The great naturalist just named says in "Animals and Plants under Domestication," that, "from a remote period, in all parts of the world, man has subjected many animals and plants to domestication or culture. Man has no power of altering the absolute conditions of life; he cannot change the climate of any country; he adds no new element to the soil; but he can remove an animal or plant from one climate or soil to another, and give it food on which it did not subsist in its natural state. It is an error to speak of man 'tampering with nature,' and causing variability. If a man drops a piece of iron into sulphuric acid, it cannot be said strictly that he makes the sulphate of iron, he only allows their elective affinities to come into play. If organic beings had not possessed an inherent tendency to vary, man could have done nothing." It will thus be seen that there is the disposition to vary in nature, and it is this disposition which enables standards to become valuable to the breeder.

Natural selection is a term which has been adopted to express the methods by which animals and plants are made to assume so many different forms when left to their own evolution, and the same tendencies are at work, or rather they are guided, when we come to artificial selection. This process Darwin very clearly describes when he says that, "Selection may be followed either methodically and intentionally, or unconsciously and unintentionally. Man may select and preserve each successive variation, with the distinct intention of improving and altering a breed in accordance with a preconceived idea; and by thus adding up variations often so slight as to be imperceptible by an uneducated eye, he has effected wonderful changes and improvements. It can also be clearly shown that man, without any intention or thought of improving the breed, by preserving in each successive generation the individuals which he prizes most, and by destroying the worthless individuals, slowly but surely induces great changes. As the will of man thus comes into play, we can understand how it is that domesticated breeds show adaptation to his wants and pleasures. We can further understand how it is that domesticated races of animals and cultivated races of plants often exhibit an abnormal character, as compared with natural species, for they have been modified, not for their own benefit, but for that of man." From this it will at once be seen that the ideal of standards is to fix some variation or variations, in order that they may be preserved, and that such qualities as they represent may not be lost. We have not yet learned all the correlative values of external and internal qualities, but it is certain that they have considerable influence one upon the

other. For instance, it is now very generally conceded that a strong relationship exists between the comb and the laying powers. All the most prolific layers have large combs, and on the other hand, nearly all the table varieties have small combs, as compared with the size of their bodies. A reduction of size in the comb of a Minorca or Leghorn would mean a lesser egg production, and the enlargement of a Game fowl's comb would tend to deteriorate the quality and quantity of the flesh which it carries. Again, the great development of hock feathers in the Brahma has certainly weakened the laying of the breed; and many other instances could be given as showing the same thing.

It may, therefore, be taken that when any variation is found to conserve some manifest quality which it is desirable to retain and perpetuate, it is necessary to idealize it in a standard. This has been well expressed in a recent work which says: "The principles upon which a standard is based are not arbitrary, but natural; are not made, but discovered. Only violation of principles is arbitrary. To discover true principles one must go to nature, must of her take lessons, must consult her in her varied developments. Whenever one deserts nature there is danger of violating principle, of becoming arbitrary and unreasonable, and at last of becoming extremely absurd. To use a figure of speech borrowed from one of the learned professions, we may say that nature is the constitutional law, the standard, the statute law of poultrydom. To the former the latter must bend." That this is true could be evidenced by several instances in which arbitrary standards have been adopted, with the result that the breeds they have been intended to improve have been injured, it may be irretrievably so. A standard should not be as hard as cast iron, but at the same time it must not be lax.

The value of standards is in the use they are to enable us to preserve some quality which we have found, either for its beauty or utility, to be worthy of preservation. They offer a type for which we may strive, an example to which we may seek to attain. It is only by them that our domesticated animals are preserved from sinking into a species of mongrelism, wherein all the benefits to be derived from careful breeding would be lost. Take, for instance, the Dorking; we know that the square body, short white legs, neat comb and head, and massive frame give to us one of the finest of table fowls, and the standard for this breed teaches us how to preserve when we have got, and how to improve these qualities. Color is a minor matter in itself, but color is an evidence of purity, and it is retained because it gives a hall mark to the breed, and is a testimony to its being without alloy. We regard it as essential that standards shall be employed, but these standards must not violate nature; they must run in unison with her. If they are in conflict, they must be altered, or the individual merits of the breed so dealt with will soon be sacrificed. —EDWARD BROWN, F. L. S., in *The Rural World*, England.

Hard on the Hens.

The henhouses were nearly buried in snow at one time, and the snow blew inside of one house. You get the "colony" plan at its worst when you have to wade through the blizzard from one house to another. At such a time the single house man has his innings, and gets many runs ahead. We gave the hens a hot breakfast—that is, it was piping hot when it left the cooker. Our hens kept at it right through the blizzard. They gave us three hundred and sixty-eight eggs in the first thirteen days of February. The P. Rocks proved the best blizzard layers, with the Minorcas next. In the same house with the Blacks, and with the same treatment, the White Leghorns surrendered to Jack Frost, and nearly quit laying. Our first hatch with the incubator, like the weather, went down to zero. The first eggs began to pip during the cold snap. In closing the incubator door, by some accident, the lamp was put out. This was not discovered for nearly an hour, and in the meantime the eggs and chicks had been chilled beyond recovery. That's our fault, mind you—it wasn't the fault of the incubator, or the rooster, or the hens.—"Hope Farm Notes," in *Rural New-Yorker*.



MR. JOHN C. JODREY, DANVERS, MASS.

Breeder and Importer of American and English Silver Wyandottes.

Mr. John C. Jodrey, and His Silvers.

Mr. John C. Jodrey, of Danvers, Mass., enjoys the reputation of possessing one of the best flock of Silver Wyandottes in this country. For seventeen years he has been a careful breeder of this variety, and his efforts to secure perfection in his favorite variety have not gone unrewarded, as attested by the fact that during the last three years he has exhibited "one hundred and twelve Silvers in nine shows, and every bird a winner."

Mr. Jodrey says that his "hen fever" dates back in his early boyhood, the first "trade" of which he has any remembrance was for a hen and brood of chickens. He always had a preference for parti-colored birds, and when he adopted Silver Wyandottes seventeen years ago, he was so well pleased with their beauty and sterling qualities that they have always been his favorites.

He was formerly located in Salem, but about five years ago moved to Danvers, where he was able to secure a place more suited for rearing his favorites. When he moved on the place there were no poultry buildings, and he was obliged to keep his birds that winter in the barn cellar. That winter the fowls were fed almost wholly on vegetable food. He would fill a large boiler full of cabbages, apples, and any vegetables he might have, and after cooking the whole thoroughly would stiffen up the mess with a little bran. This was used for feeding twice daily, with one feed of whole grain. The fowls kept in excellent condition on this diet, and their winter was passed in the best of health. One noteworthy fact which proves the fine condition in which this method of feeding kept the stock is, that out of thirty-five sittings of eggs, set in the spring, he received three hundred and fifty-four strong healthy chicks. All the eggs set that season gave fine hatches.

On Patriot's day we had the pleasure of calling upon Mr. Jodrey, and were shown some of the best Silver Wyandottes to be seen in this country. Some time ago, when he imported English fowls to improve his stock, some skeptics predicted that he would ruin the excellence of his birds by mixing them with English blood. This calamity did not fall to his lot, however, and today he is able to show some of the best bred birds that have ever been produced, which are the result of intelligent mingling of English with American blood.

He keeps only a flock of about sixty breeders, preferring quality to quantity. These birds are housed in a warm roomy house, with ample yard room on either side of the building. In the spring and summer these yards are ploughed up frequently, and planted with grain to insure a plentiful supply of green food.

The nests used for the layers are made of shoe boxes, or oatmeal cases set on legs, and

with a little platform just under the opening cut in the side of the box; the top is left uncovered. This box is placed under the droppings board, one large nest in each pen. He prefers one large nest to several small ones, as less eggs are broken. Where the smaller nests were used, the hens would crowd on one, and not use the others. When he desires to save the eggs of any particular bird of some special mating, that bird is secured in a comfortable confining pen until she lays, and then she is permitted to run with the others in her pen.

Mr. Jodrey feeds a variety of food, but does not have any fixed food schedule. He does not like to know every day just what he is to get for dinner the day following, and naturally thinks that his fowls are not unlike himself in this respect. Mash food is always fed just before roosting time, as it was found that a morning mash had a tendency to make the fowls lazy and indifferent to exercising. Since he began feeding a night mash, something over two years ago, the birds have produced more and better eggs, and have been healthy; actively scratching for their daily food.

Most of the hatching is done by hens. For nests for sitters he uses an ordinary cracker box, having a hinged cover; a hole is cut in the end of the box for the hen to enter and leave the nest. These cracker boxes are also used as a convenient carrier for transporting a hen and her brood from one part of the farm to another. Some of the early chicks are reared in Wood & Paige hot air brooders, but most of them are hen reared, the hen being confined, and the chicks allowed free range. This year Mr. Jodrey is farming out some of his eggs in order to have all his youngsters on farm range. In the fall the best of chicks raised from these eggs will be selected and paid for at a fair price, that will compensate the farmer for giving the chicks the best of care.

The chickens are fed on bread and milk for the first three days. After that they are fed almost entirely on a johnnycake made as follows: II-O food three quarts, shorts one quart, corn meal mixed dry, with one great spoonful of baking powder; a little meat meal and bone meal, and four or five infertile eggs, —the whole mixed with water, and baked into johnnycake. In using meat meal or scraps he is very cautious until he is sure that they agree with the chicks, as he has found that the commercial meat foods sometimes vary a good deal in effect, even when the same brand is used, and that sometimes they will cause bowel trouble if carelessly used.

We thoroughly enjoyed our visit at Mr. Jodrey's. He is an enthusiastic breeder of thoroughbreds, but also has a keen appreciation of the value of utility virtues, as well as the beauty in feather and shape. He pointed with pride to some of his blue ribbon females,

which he assured us were the best layers in the flock. He is an earnest believer in the Wyandottes as general purpose fowls, and says that they are unexcelled for table poultry, while in eggs alone they will in a year give as much money value as any other variety.

DR. WOODS.

The Best Way to Use Hen Manure.**Stronger Than Other Kinds, and Should be Used With Care.**

A young farmer who has had a few years of success in the poultry business, asks how he can best use hen manure on the land he cultivates. He has used it in various ways, but never with satisfactory results. In most cases the crops to which it has been applied have been injured rather than benefited. It seems to be so strong as to burn the roots of all plants coming in contact with it. Last year he used it on potatoes, but did not dare to put it in the hill; he spread it on the surface along the rows after the crop was nearly grown, leaving it without cultivating it in. It did not injure the crop, nor did it seem to do it any good. He is now tempted to abandon its use as a fertilizer, which would be a foolish thing to do.

Poultry manure is one of the most valuable by-products of the farm. It is more concentrated than most farm manure, for it is usually made from richer material, and contains both the solid and liquid parts. I have several times injured crops when hen manure has been put in the hill or drill. It will even destroy potatoes if applied freely in the hill. It is rich in ammonia, which is poison to vegetables or animal life if not greatly diluted.

I find the safest as well as the most economical method is to spread it broadcast, and cultivate it into the soil with a cultivator running from three to five inches deep. Nor is there danger of cultivating the ground too much. The more thoroughly the manure is mingled with the soil the better, and if the work is done at intervals of a few days it will be better still, as the hard lumps, if any there be, will have time to soften so they will get pulverized and spread about in the soil.

Unless one realizes the strength of poultry manure as compared to other kinds, one is likely to apply it too plentifully, even broadcast. A cartload should cover considerably more surface than the same bulk of most other kinds of farm manure. As it is specially rich in nitrogen, it would pay well to spread it in connection with poorer manure if one has it. To use it as a topdressing for grass is not often recommended, but I once used some that way with the best results. It changed a thin sod to a thick one, and lasted much longer than I expected. It is not exhausted in a single season.

The manure from a poultry yard ought to be made to produce all the green stuff the flock can use, such as clover, cabbage, and beet root for winter, and besides a large portion of the grain. Here in New England it pays to purchase wheat and bran for hens, but the corn can be grown at a profit by properly using the droppings and sweepings collected in the houses. Dry soil or sifted coal ashes should be used freely to preserve the manure without waste.—A. W. CHEEVER, in *N. E. Farmer*.

In all the discussions held over the question of which breed is best, the essential point is apt to be overlooked. We are too apt to think that standards reached by individual animals or flocks are fixed and arbitrary, forgetting the natural law of reversion. The chief factor in profitable egg production is the man. It is the dominant will of the objective mind of the owner over the subjective mind of the animal which is to be recognized. This explains why, in the hands of certain men or women, any breed will respond, and is a fact to be appreciated by everyone engaged in poultry raising. The person who loves poultry, and can make friends with his birds, has but to apply his skill in feeding to obtain results. Another taking the same birds and feeding in the same manner will fail. You cannot fix egg production by legal enactments or posted orders. It comes only through friendly relations being clearly established. For this reason the best breed for any person is the one he or she fancies most, and when with this fancy there goes an appreciation of what egg production means to the hen, the output will be satisfactory.—*Maine Farmer*.

"In Union There is Strength."

True strength consists in the union, the harmonious working together, of every part of the human organism. This strength can never be obtained if the blood is impure. Hood's Sarsaparilla is the standard prescription for purifying the blood and regulating the whole bodily machinery.

Hood's Sarsaparilla
Never Disappoints**PRICES REDUCED**

After May 15th.

EGGS for HATCHING.**Barred Plymouth Rocks,**

(Brown Egg Strain; "the business fowl of the 19th century.")

White Wyandottes,

(Brown Egg, Prolific Laying Stock).

PRICE, \$1 PER SITTING

For eggs from the same pens I set eggs from for my own chickens.

Incubator Eggs, \$6 per 100.**A. F. HUNTER,****South Natick, Mass.****"210 EGG STRAIN"**

—OF—

White Wyandottes.

Bred for utility. Pullets of this strain mature when five months old, are of standard weight, and have averaged 210 brown eggs per year.

Eggs for hatching, \$2 per sitting; 3 sittings \$5. Breeding pens for sale.

Formerly at Natick.

F. E. WOODS,
Mansfield, Mass.**Remington's Langshans.**

See their winnings at the Boston show:—Cock, H. C.; cockerel, 1st and V. H. C.; pullets, 1st, V. H. C. and H. C.; breeding yard, 1st; special for best cockerel and 4 pullets; special for best breeding yard, and special for best display.

Excellent young stock for sale. Eggs, \$3 per 13; \$5 per 26.

J. S. REMINGTON,
Box 136, Greenville, R. I.**RAYMOND'S****WHITE Wyandottes SILVER BUFF GOLDEN.**

Are great layers as well as **PRIZE WINNERS**, and have rich yellow legs and correct plumage. **EGGS** that will hatch \$2 per 15; \$4 per 50; incubator eggs \$6 per 100.

WILL H. RAYMOND,
Box 686, Central Falls, R. I.**LANGSHANS**

That win in any kind of company.

BOSTON '99.

1st hen, 2d pullet, 4th pen. Eggs \$2 per 15; \$3.50 per 30; \$5 per 45. From pens which include all our winners.

PLEASANT VALLEY POULTRY FARM.
Address **BATTY BROS.,** Methuen, Mass.
Box 106, Lawrence, Mass.**B. P. ROCKS**

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W. WYANDOTTES

For vigor and brown eggs \$1 per 15, straight; incubator eggs \$5 per 100. No better practical stock at any price.

Bailey's BROWN LEGHORNS.

Noted layers, prize winners, and non-sitters.

J. A. BAILEY,
No. 738 14th St., Denver, Colo.**Black Langshan****EGGS**

Your last opportunity to get eggs from my stock at these prices:

\$1 per sitt. of 15 from 4 pens.

\$2 " " " " 1 pen.

Trios \$5; cockerels \$2 and \$3.

JAMES H. LORD,
Lawrence, Mass.

Box 26,

Western Fowls and Eastern Markets.

Written for FARM-POULTRY.

(Continued from page 184.)

Perhaps an hour later I was talking with a salesman at one of the retail stalls in Faneuil Hall market, and remarked that I had seen that afternoon a lot of western stock much superior in appearance to most nearby stock. "Yes," he replied, "you saw that at Plumley's. We have some of it here." Then pointing to a row of fowls on the hooks, he said: "There are some native fowls,—good smooth stuff. Now," taking one of the western fowls in question, and holding it up beside them, (by the way, it happened to be *larger* than any of them), "what's the difference? The western fowl doesn't look quite as fresh and smooth as the others, but 'tis every bit as good. When they're cooked no one can tell the difference. There are lots of people who find western fowls all right, as long as they think they are natives, but if they knew they were not, the taste would make them sick."

As to the general run of western stock:—I have not yet found a dealer handling stock from both sections who does not say that the western runs better. Dr. Woods learned that western poultry "runs undersized." It is pertinent to ask, undersized according to what standard? Is it "the best selling size"—birds that will dress eight to twelve pounds to the pair? If so, his informant would experience some difficulty in substantiating his statement.

Not only does "the west" furnish the bulk of the poultry which comes to this market, but during certain seasons, and for some lines of poultry, the people of Boston and vicinity are, practically, entirely dependent upon the west for poultry. In January and February there is hardly anything to be had but western poultry. Often there is so little eastern stock offered that no quotations are made on it in market reports. For its turkeys, Boston depends upon "the west." "Massachusetts," said one man to me, "does not produce enough turkeys in a year to last any one of the big provision dealers a single day in cool weather." Rhode Island turkeys are rarities in Boston. Vermont turkeys cut quite a figure for a little while at the holidays, but not at other times. In quality the best western turkeys are not inferior to the best eastern—*bar none*. Some say they cannot be excelled. One large dealer told me he had not taken home a northern turkey this year; that he preferred the western; that he had also given western turkeys to those of his relatives and particular friends who each year asked him to personally select them extra choice turkeys; that in every instance they had expressed surprise when informed afterwards that the turkeys were western, and had agreed that they were in every respect equal to eastern stock.

And how about prices? Will western stock of equal quality bring the same prices as eastern stock? Generally speaking it will not—if sold as western stock; there are some exceptions in favor of shippers whose goods are known as of extra quality, and reliable. The usual difference in price is two cents per pound. Sometimes it is three cents; again only one on some kinds of poultry; but nearly always there is some difference in favor of nearby stock.

That much western poultry is sold as eastern, there can be no doubt. In going from the train the other morning, I stopped at half a dozen or more stalls, and made inquiries for eastern chickens and northern turkeys. A few dealers had none; more had nothing else. Still, I think the greater part of the western poultry is sold as western poultry. Dealers tell us that western poultry works its way on its merits, against prejudice, and that every year the number of buyers who *call for* western poultry, increases. Where once a buyer takes good western stock, knowing just where it came from, and finds it satisfactory, he loses his prejudice. The effect of this is to gradually reduce differences in prices; but more, perhaps, to make a demand for western stock.

Western shippers, say the dealers, get full market quotations, or, for extra choice stock, an advance, more often than do eastern shippers. The reason is that the western shippers are mostly large shippers, who care-

fully grade their stock; while eastern shipments come generally from small shippers, sending everything good, medium, and poor in one package. The eastern shippers are nearly always producers; the western, dealers. Yet there are many producers shipping from western points, most of them shipping extra choice stock, and getting top prices. At "Rudd's" I saw a box of capons from Iowa, which I was told would net the shipper 13 cts. per pound. As the Boston quotations for that day were 13 and 14 cts., that shipper ought to feel satisfied with his returns.

Those capons weighed about eight pounds each. Had they been a pound or two heavier, they would have brought a little more; but not such prices as are mentioned in the closing paragraph of the editorial article in F.-P., for Dec. 1st, 1898. I quote from it:—

"The case * * * is simply this: those mongrels may make good capons, but thoroughbred Brahmas, Cochins, and Plymouth Rocks make very much better capons, and not only that, but they bring a very much better price, as a recent experiment station report conclusively proves. Where capons weighing about 8 lbs. brought about 20c. a pound, a 9-lb. capon would bring 22c., a 10-lb. capon 25c., an 11-lb. capon 28c., and a 12-lb. capon 30c. It is the Brahmas and Cochins that make those big 11 and 12-lb. capons which bring the big price, and we want to ask Mrs. Clearwaters to do a little sum in arithmetic, and then tell her readers if she can, that it pays them to go on keeping mongrels. A mongrel capon, allowing that it is good and weighs 8 lbs., selling at 20c. a lb., brings \$1.60, whereas the Brahma or Cochin capon of 12 lbs. weight brings 30c. a lb., selling for \$3.60. There is the keynote of the whole matter, and that is why we urge our western friends, if they are going to make capons, to make good ones. Why raise \$1.60 capons when one can just as well raise \$3.60 ones?"

In this same paragraph the editor of FARM-POULTRY charges the Wisconsin writer with misstatements which mislead the western farmers. No more misleading information and advice was ever offered the inoffensive and defenceless "western farmer" than is contained in the above quotation. It is eight years since the experiment referred to was made; six since the report was published. It did not conclusively prove thoroughbreds of any kind better than mongrels. It did not even recommend thoroughbreds. Crosses were recommended. It did not state that, "Where capons weighing about 8 pounds brought about 20 cents a pound, a 9-pound capon would bring 22 cents," etc. What it did say and what in his article of September 15, 1898, the editor of F.-P. quoted it as saying, was:—"When ten-pound birds bring twenty-two cents, twenty-five cents will be given for twelve-pounders, and twenty-eight cents for those weighing fourteen pounds."

That was in 1891. Green ducks brought big prices, too, in those days. As a recent writer on ducks says, "Alas, times have changed." For a number of years the prices for capons have ranged 14 to 16 cents for Philadelphia stock, with extra choice sometimes as high as 21 cents late in the season; 12 to 13 cents for western stock early in the season; and later, 15 to 16 cents, with extra large fancy 9 and 10-pound birds commanding some advance above these prices. (These figures are from W. H. Rudd, Son & Co.'s circular, and from market reports in F.-P.) The general market knows nothing about 12 and 14-pound capons. The most salable sizes are 6 to 8 pounds. Larger birds bring better prices, because they are scarce. Were they abundant they would probably bring less per pound than the small ones.

Instead of being able to raise \$3.60 capons, the western farmer will find it no easy matter to raise \$1.60 ones. Indeed, he will have no reason to feel dissatisfied and quit caponizing if he can net \$1 each on his capons.

Now just a word about eggs. *Western eggs run larger than eastern, and are of better quality.* During cool weather they come on the market in prime condition, and sell right with eastern eggs of the same grade. Take as an illustration the quotations in the market report for February 9th:—Eastern extra, 21 cents; Vt. and N. H. extra, 21 cents; Mich., Ill., Ohio and Ind. extra, 21 cents; western choice fresh, 20@21 cents. In the

summer and fall, they are not received in as good condition, generally, and the difference in prices obtains except for some special shipments; and western eggs are not only bringing the same prices as eastern, but they are gaining in favor at those prices. People buy them once, and buy them again. A significant pointer is the fact that one of the leading bakers here is using western eggs in preference to eastern, because he has found that they are richer and make better cakes. It is a fact full of significance to those interested in feeding problems, that the marketmen attribute the superiority of western eggs to the hens being mostly corn fed.

Here is something more for the *indicters* of western poultry to think about. Mr. W. D. Rudd told me that the very best brown eggs they received came from Ohio. These will sell as western eggs, with the best home products—and there are others. This firm has a number of shippers at various western points sending eggs equal in every respect to the best produced here, and selling right with them. Understand, a western egg will not sell—in extra choice grades—with the eastern, to people who do not know the western as good; but the buyers who want good eggs and have tried the western article, come back for more.

"The west," which sends poultry to the eastern markets, includes the states of Ohio, Kentucky, Indiana, Michigan, Wisconsin, Illinois, Missouri, Iowa, Minnesota, North Dakota, South Dakota, Nebraska, and Kansas. It has nearly one-fifth of the area, and almost two-fifths of the population of the United States. It supplies poultry and eggs liberally for its own millions of people. From its surplus it supplies the bulk of the demand in the large cities of the east, sends vast quantities to a more remote west, and still has a little good stock left for export. All this is done so easily and quietly that the average citizen not specially interested in poultry, and many poultrymen as well, hardly think of the industry as one of considerable importance.

As to thoroughbred stock:—during the season just closed, "the west" held as many poultry shows twice over as all other sections combined. These were regular shows—poultry association shows. There were besides poultry exhibits at every state and county fair—literally hundreds of them—and many of them exceptionally good shows. "The west" has strong, hard working poultry associations, made up almost exclusively of farmers and farmers' wives and daughters. Hardly a state in it has not a good live poultry paper, and some states have three or four. In its smallest towns and most out of the way districts, one finds breeders of thoroughbred fowls. Under the circumstances the "indictment" of western poultry was, to put it mildly—a mistake.

JOHN H. ROBINSON.

Why So Many Die.



It would be appalling to know in round numbers how many young chicks die from different causes known to so few of the hundreds of thousands of poultry raisers.

To Assure Success
Practical Poultry Culture

which will start you right and keep you right. Tells everything the beginner should know, and aids the experienced in a hundred ways. It consists of 150 pages of up-to-date poultry lore from the pens of practical and experienced hands. Endorsed by all leading poultry authorities and editors of poultry publications. Don't be satisfied until you get it. It will both make and save you money. Price 35 cents by mail postpaid, or 50 cents including a year's subscription to the

AGRICULTURAL EPITOMIST which is of sterling value and indispensable to the up-to-date farmer, gardener, live stock and poultry raiser. Address Epitomist Pub. Co., Dept. B, Indianapolis, Ind.

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RHODE ISLAND REDS.

Having mated my best stock of the following breeds: Rhode Island Reds, single or double comb, Barred Plymouth Rocks, Felch strain; White Plymouth Rocks, Hawklus strain; White Wyandottes, Duston strain; Gold and Silver Wyandottes, Hawklus and Jodrey strain. Eggs \$1 per 13; incubator eggs, \$3.50 per hundred. Have a fine lot of White Wyandotte cockerels at \$2 each.

HENRY A. HOLCOMBE, New Bedford, Mass.

FREE SPRAY PUMP to one person in each place. We mean it. If you mean business and want agency send 25c. We will send a complete pump that will do the work of a \$10 spray. P. F. PUMP CO., B 909, Westbrook, Minn.

Mrs. Barnard Thanks
MRS. PINKHAM FOR HEALTH.

[LETTER TO MRS. PINKHAM NO. 18,992]

"DEAR FRIEND—I feel it my duty to express my gratitude and thanks to you for what your medicine has done for me. I was very miserable and losing flesh very fast, had bladder trouble, fluttering pains about the heart and would get so dizzy and suffered with painful menstruation. I was reading in a paper about Lydia E. Pinkham's Vegetable Compound, so I wrote to you and after taking two bottles I felt like a new person. Your Vegetable Compound has entirely cured me and I cannot praise it enough."—MRS. J. O. BARNARD, MILLTOWN, WASHINGTON CO., ME.

An Iowa Woman's Convincing Statement.

"I tried three doctors, and the last one said nothing but an operation would help me. My trouble was profuse flowing; sometimes I would think I would flow to death. I was so weak that the least work would tire me. Reading of so many being cured by your medicine, I made up my mind to write to you for advice, and I am so glad that I did. I took Lydia E. Pinkham's Vegetable Compound and Liver Pills and followed your directions, and am now well and strong. I shall recommend your medicine to all, for it saved my life."—Miss A. P., Box 21 ABBOTT, Iowa.

BUFF LECHORNS,
ROCKS.

First honors at New York and Boston shows. Best matings this year I ever owned.

EGGS \$3 PER SITTING.

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JUST OUT New illustrated catalogue and FREE of the "IDEAL" Green Bone & Vegetable Cutters with Hardened Steel Roller Bearings. 10 Styles. Automatic Water Fountains. Incubator Buttons & Grain Crushers. Popular Prices. CHAPMAN MFG. CO. Box 406, W. UPTON MASS.

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30 regular and special prizes at the great Boston show, Jan. 17–21, 1899, including 1st, 2d, 4th, 5th and 6th cock; 1st, 2d, and 6th pullet; 1st and 6th hen; and that grand prize, 1st exhibition yard. Among the many specials awarded us are the Greenhalge Cup for best display bred and raised by exhibitor. Also \$10 for best cock 1 and 4 pullets; \$10 for best 2 cocks, 2 hens, 2 cock 1's and 2 pullets; \$10 for best cock, hen, cock 1, pullet, and exhibition yard; and ribbon for whitest male, and for best shaped female. When the competition is considered we claim this to be the greatest record ever made by any breeder of Light Brahmas.

If you are looking for breeders write us. We are now booking orders for eggs at \$4 per 13; \$7 per 20; \$10 per 33.

ROLLINS BROS.,

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PURE GOLD

Buff Rock eggs from highest scoring pen in New England—187 1-8, Watson, Judge, winners at Amesbury, Manchester, Milford and Boston. Every bird standard weight. Eggs \$5 per sitting. White Wyandotte, Barred Rock and Black Minorca eggs \$2. The reputation of my stock has been made in the show room. Satisfaction guaranteed. Stock for sale in season.

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DECKER'S NOVELTY LEG BANDS, for poultry and pigeons. Permanent success; five years' use; a beautiful band for the show room. Marked with any letters or numbers you wish. For pedigree breeding we make sizes to carry chicks from shell to maturity. Bridgeport, Conn.—It is the only band I have had that is sure to stay on.

—W. E. HOWE. When ordering mention breed.

Price, 25 cts. per doz.; 40 cts. for two doz.; \$1.25 per 100.

Send for cir. W. J. DECKER & CO., Leonia, N. J.

Complete set, with full instructions, post-paid, on receipt of \$2.50. 25c. Capon Book free for 2c. stamp. Poultry Marker, 25c. Roup Syringe, 10c.

Gape-Worm Extractor, 25c. Remit by Money-Order or registered letter.

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Philadelphia, Pa.

CAPON TOOLS

The Tribulations of an Amateur.

Written for FARM-POULTRY.

Someone asked Lucinda when and how she first came to think of "going into hens." The question seemed to infer that Lucinda was a famous poultrywoman of, say, a quarter century's experience with a large and successful plant, and that her beginning was of general importance. This was not the case. As a matter of fact, she had just set her first hens on a very limited scale,—three of them in a row down cellar.

Therefore she blushed a little, said she really couldn't remember, and changed the subject. She didn't like any questions about her hen doings.

When alone, however, she thought of the question again. It really was odd that she could not recall how the idea came. She knew she did not have it three years ago, when she and Peleg, and the Heir were "vacationing" on a farm. Peleg had taken her into the henhouse, to show her the fowls on the roost. It was a two story house, and she very much wanted to watch the birds, but was obliged to retreat down stairs and out, in a few minutes, Peleg following her in wonder.

"What was the matter?" he inquired. "I wanted you to see that old fellow cock up his eye at me."

"I couldn't stand it any longer," she responded, "it is so dirty and smelly. I don't see how the poor things can sleep there."

"Why," exclaimed Peleg, surprised, "that's a much cleaner henhouse than most you find; I thought it was a pretty fair place."

Lucinda shuddered.

"I suppose it is, then," she said meekly. Peleg had lived in villages, when a boy, but she was a city product entirely. Many times after, however, her thoughts reverted to that henhouse, and she would burst forth:

"I don't care, Peleg, it does *not* seem natural that any creature should live in such filth, and something must be wrong."

But Lucinda is now at a loss to know how or when the idea grew in her, that at the first opportunity they would move countryward, and have some hens themselves, if possible, and "on a scientific basis;" however, there it was, and was imparted to Peleg, who heartily agreed in it, and while waiting "our hens" became a family joke.

"I don't know anything about hens, and I don't know that I shall prove at all adapted to them; and I doubt if my brain will ever be equal to working out anything itself, or my judgment be worth a rap; *but* it does seem as though I might be able to follow instructions implicitly, when I have found an authority," said Lucinda humbly.

"It seems so to me, decidedly," assented Peleg—"and we must be on the lookout for the authority."

About then they met some out of town people who kept hens.

"We do it scientifically," they said, and Lucinda was on the alert at once.

"Why, that is what we wish to do," she exclaimed.

"Then you want to take FARM-POULTRY," was the prompt reply. "That is the standard poultry paper, and you can study on it at your leisure, even if you are in the city."

Lucinda visited the FARM-POULTRY office and invested in that year's F.-P., *A Few Hens*, the "Farm-Poultry Doctor," Boyer's "A Living from Poultry," and "Broilers for Profit," and the first, second, and third bound volumes of F.-P. Her feet were now on firm ground.

"I want the complete file," she said, "but these will do for a start."

It was arranged that she should do the studying on the subject, retailing it occasionally at second hand to Peleg, who worked hard, and generally reached home feeling as if his brains had been squeezed dry. (Peleg's business was being an editor). When they really came to have any objects to work upon he was to be an active participant,—as was also the Heir. Meanwhile, they moved,—and much is contained in that phrase.

Lucinda found her studies very fascinating. "I am remembering a few facts," she announced, triumphantly, and marked some off, on her fingers. "Begin small, and go slowly — (I think we can do that all right, Peleg). Keep clean; keep the houses clean;

keep the runs clean; keep the water clean; keep the boxes clean; keep the food clean; keep everything clean; then your hens will be clean. Get thoroughbreds; get only one kind, at least first; give them a scratching shed house; give them good sized runs; give them grit; give them oyster shells; give them broken crockery; give them plenty of fresh clean water; give them Sheridan's Condition Powder; give them a dust bath; give them death to lice; give them a rest — I mean a roost."

"How are you going to begin?" asked Peleg.

"Build a scratching shed house, this summer, and buy a small pen of White Wyandottes," answered Lucinda, promptly. "I believe that is considered the best method of starting."

But, oh, for Lucinda! — "circumstances over which" prevented their building. Time went on, and the fall winds blew, and when the "circumstances" were over, so was the season.

"Well, shall we start in?" inquired Peleg, one October morning.

"I am *not* going to disregard instructions," returned Lucinda, with decision. "F.-P. has said, times enough, to build in plenty of season to get the house dry for winter, and the pullets settled down by laying time. They ought to be in the house this very minute, and before. I will *not* write to the editor and ask him if he thinks providence would hold the season back and do a little extraordinary drying for us,—to say nothing of guaranteeing just the kind of pullets that would stand taking a journey in November or December, and go right on laying in strange quarters; because F.-P. has already stated firmly that we needn't expect anything of the sort. We shall have to wait till spring, and start in hatching — for I don't want to wait almost another year," she added ruefully.

Here, the Heir broke into lamentations. Lucinda sympathized with him, deeply — and thought hard.

"I don't believe in contracting any of the dimensions F.-P. has given, and won't do it myself," she finally said, "but if the Heir is really so disappointed, he may do this:—build a miniature scratching shed house, and do all the work on it himself; and if he can finish it before it is *too* cold, perhaps about three hens would be able to survive in it through the winter. It would always be useful for a hospital or coop of some sort, afterwards, and he could find out whether he was able to keep a hen alive, anyway."

So the Heir started in, (with some second hand lumber) and worked like a Trojan at first—and like a disinterested party later. On the whole he did very well for a novice, but his school work cut his time very short, and the first big snow storm came and found his house with one double boarded side and back, and one single boarded side and roof. (The building measured 12 x 6 ft.,—the pen to be 5 x 6, and the shed 7 x 6). After the storm passed Lucinda felt that at least the house was secure on its foundation, for the wind had blown a gale, and their situation was much exposed; but the next storm came, and, lo, in the morning the house was flat on its roof. The gale had come from the opposite direction, into the open front of the building, and pried it from the ground. Peleg turned it from its roof to its back, and the Heir proceeded to slowly take it to pieces and stack the lumber in the cellar. No hens inhabited the premises that winter.

The Heir philosophically informed his parents that after all, one had to learn by experience, and that this ought to teach him a lesson.

* * * *

At last they were face to face with the season and the practical side of the poultry subject. They remained true to their principles, and decided to make a very small start in the shape of two broody hens, set late enough to put the chicks outdoors at once, to be brooded by one hen, and the other reset. Lucinda thought about the first of April would be right. She rejoiced greatly over the article on the hatching and raising of chickens, which appeared in the middle of March.

"It is so thorough," she said to Peleg, "and so handy. I shall not have to hunt up the scattering articles on the subject, for 'tis all right here. You've no idea how it revives my

courage; I felt quite weak. Bless his boots for collecting and republishing it."

The hen question was now uppermost. Inquiry revealed the fact that the near neighbors who had hens had no sitters, and if they had, would want them themselves. Lucinda stood this until the latter part of March, then became panic stricken, and told Peleg that she should write for the eggs and the broody hens too, at the risk of stamping herself an ignoramus.

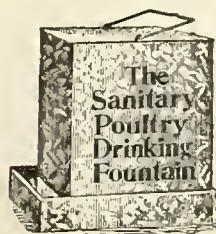
"For that's what I am," she said candidly. "I absolutely don't know whether 'tis an unheard of thing or not,—and I have a wee idea that the hens wouldn't be broody by the time we got them, too—but I must make some move, and I ought to be ordering those eggs."

She received no hens, but did receive kind advice to search further in her vicinity, whereupon she and Peleg started out at once. They walked, and walked, and stopped where they saw signs of hens, finding the same story everywhere; every man who had hens wanted to buy sitters instead of selling them. They resolved not to be discouraged, however, and discoursed cheerfully on plans of hunts for a week to come. Perhaps on this very account dame fortune, who had been scowling at them all the afternoon, grew tired about dusk, capitulated blandly, and led them to the best looking yard they had seen. The owner was not at home, but was expected each minute, and on invitation they waited. Peleg looked at Lucinda beseechingly, for he was afraid of intruding, but Lucinda was too full of determination (and hens) to heed. She was rewarded for steadfastness, too, when the master returned and consented to let them have the two hens about the middle of the next week. They went home, jubilant, to prepare for the reception of the live stock.

"For I really felt grim," said Lucinda, "when I thought of having to wait till summer. And now, for the application of the article. My object, as I said before, Peleg, is to follow directions implicitly."

They had ordered three sittings, two to be sent at once. Now they gradually changed their first plan, resolving to get another hen, if possible, and set the third sitting also, instead of resetting later, for the season was hurrying on.

(To be continued).



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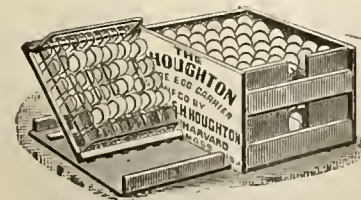
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Barred Plymouth Rocks,

Bred from prize winners, and mated by an expert Rock breeder. Eggs from best yards, 13, \$3; 26, \$5. The same can be said of our White Rocks. Eggs, 13, \$2; 39, \$5. Eggs for incubators, \$6 per 100.

A. J. HALLOCK,
Box B, Speonk, L. I., N. Y.

BUFFINTON'S BUFFS

Still take the lead. Hundreds of prizes won at such shows as Madison Square Garden, Buffalo, Washington, Hagerstown, Hartford, Providence, Boston, and nearly every local show in New England. We have the only flock of good Rhode Island Reds in the country. Eggs from Buff Wyandottes, Buff Plymouth Rocks, Buff Leghorns, and Rhode Island Reds, \$2 per 13; \$5 per 40. Buff Cochins, Barred P. Rocks, and White Leghorns, \$1.25 per 13; \$3 per 40. Stock for sale. For \$1 we will send receipt of Sampson's method of feeding hens for eggs. Send for circular.

ROWLAND G. BUFFINTON,
Box 677, Fall River, Mass.

GOLDTHWAITE'S Continental Poultry Food

A balanced ration, composed of six kinds of grain, Meat and Fish meal.

PRICE, \$1.50 PER HUNDRED LBS.

GREEN CUT BEEF BONE.

Price 2 1/2 cts. per lb.; lots of 100 lbs., \$2. Grain and Poultry Supplies of all kinds. Samples free.

E. H. DOBLE & CO.,
West Quincy, Mass.

Items of Interest from the West.

A list of questions sent out by the subscription department of FARM-POULTRY asking information about the condition of the industry, the interest of farmers in thoroughbred stock, and the proportion of poultry keepers who read poultry papers, has brought forward a great deal of information of value to the publishers, and some of interest to readers generally. To date returns are mostly from three states, Ohio, Kansas, and Iowa. Something like six hundred reports have been received from as many different points. On some points the evidence of these reports is singularly unanimous.

As to the interest of farmers in thoroughbred poultry, the general testimony is that farmers are just beginning to see the advantage of good stock. In a few places the farmers generally keep a very good grade of hens. In more there is little real interest in poultry; but in most places farmers know that "chickens" are profitable, and are just beginning to find out that blood tells in poultry just as in other stock.

The worst feature of the situation, as our correspondents, many of whom are breeders, see it, is that the farmers are slow to understand that good stock is worth more for breeding purposes than poor stock, and wait to buy cheap. Says one: "The bulk of the farmers would think if you offered them a 99.9 point P. R. cock for fifty cents, you were twenty-five cents too high. They would want to trade a scrub for it." From the point of view of the breeder who has stock to sell now, this is a bad state of affairs; but there is no use being impatient about it. Farmers are proverbially conservative—slow to make up their minds, and slow to change them. Once your customer, the farmer is always your customer. He does not keep chickens one year and go out of the business in disgust the next, as some people who are quicker to see the advantages of thoroughbred stock than to learn how to care for only common stock do.

Farmers generally do not read poultry papers. The truth seems to be that only a comparatively small number of farmers have ever seen a poultry paper. To the question, "Are they satisfied with the poultry column in their agricultural paper?" some very shrewd answers have been given. There seems to be a general suspicion among observant poultrymen that farmers are not satisfied with the poultry column as usually conducted; that they realize how trivial and inadequate it is; but that those who are a little interested go to it for want of something better. After a while the interest becomes greater, and the farmer feels that he must have a paper devoted to poultry.

The magnitude of the poultry and egg product of the country is not easily comprehended, even by those familiar with large figures. Here are a few items that will help one to get a grasp on the subject, and also to realize how the shipment which seems large to producers where production is on a small scale, may seem very small when compared with really large quantities.

Lisbon, Ia., ships about three carloads of poultry each year.

From Cresco, Ia., about twenty carloads of live and dressed poultry are shipped annually.

Gill & Co., Gallipolis, O., shipped to Pittsburgh, Pa., in one week, forty thousand dozen of eggs, the results of a single week's collecting. Another firm in Gallipolis ships about half as many.

Kennonsburg, Ohio, a little way station, shipped by express in November last, 23,000 pounds of dressed poultry; in December, 38,000 pounds.

Arcanum, Ohio, ships to outside points, \$10,000 of poultry annually.

"There is a greater number of pounds of poultry shipped from Harrison Co., Ohio, each year than of wool—and this is a noted wool country."

"Sedgwick Co., Kans., did \$50,000 of business in eggs this winter, from November 1st to March 15th."

From W. L. Field, Kans., the annual shipments of poultry products are eggs, one hun-

dred carloads; poultry, about one million pounds.

The northwestern corner of Ohio is a great poultry producing territory, though the fowls used are mostly common or grades, and fanciers are rare there. Fulton Co. breeders claim that their county produces more poultry than any county in the state. From Henry Co., adjoining Fulton on the south, a poultryman writes: "I do not think there are any two counties in the United States that can boast of having shipped as much poultry as this and Fulton Co., our market point being Wauscon, Fulton Co." Williams Co., west of Fulton, in the extreme northwest corner of the state, shipped about one hundred carloads of live poultry last season. A small part of this, however, was brought from Fulton Co. Considerable dressed poultry is also shipped from this point, but no figures have been furnished.

Nearly half of the business men of Painesville, O., are members of its poultry association, and thoroughbred stock is booming in that vicinity. The interest is general. W. T. Naylor says that new poultry houses are going up all around the country, and farmers and amateurs are looking for good stock.

In the vicinity of Liscomb, Marshall Co., Ia., the Barred Plymouth Rock is popular. It is said that nearly all the farmers there keep fowls of this variety, the flocks ranging in numbers from one hundred to six hundred.

L. J. Phillips, Olbers, Athens Co., O., reports many farmers in that section waking up on the poultry question, and interested in good stock. Athens county has been a great peach county, every farmer having from one thousand to ten thousand trees. The peach trees now are generally killed, and Mr. P. thinks farmers might advantageously give more attention to poultry.

While Fulton Co. claims to produce the most poultry, Fayette Co. claims to have more large breeders of good stock than any county in the state, and also that the farmers there keep a much better grade of fowls.

Republic Co., Kans., is one of the counties mentioned in F.-P. about two years ago, as making rapid strides in poultry production. T. M. Fleming, of that county says: "Every farmer here has from one hundred to five hundred hens, generally mixed stock; more of the Leghorn type than any other. Eggs are from 5c. to 20c. per dozen, averaging about 10c. Chickens are from 4c. to 7c. per pound during the year."

E. H. Crumrine, Hesper, Douglas Co., Kans., says:—"The farmers here are going from hogs to poultry, and are alive to the value of fine stock."

In many western localities where poultry is cheap, much attention is given to the production of turkeys for the Thanksgiving and Christmas markets, and in such places a good grade of Bronze turkeys is kept, though the chickens are not always correspondingly good. About Chinarron, Kans., is a great turkey country. Chickens there are kept mostly for eggs, and mongrels are almost universal. Whitefox, Huron Co., Ohio, is the center of another turkey growing section, but here what turkeys are kept are generally a good grade of Barred Rocks.

J. Stevens, Webster City, Ia., says: "Our farmers realize that poultry is one of the best farm products, notwithstanding the low prices they receive."

One shipper at Greenfield, Ia., shipped over two hundred tons of dressed poultry last year, besides considerable live poultry.

Not long ago some of the poultrymen of Montgomery Co., Kans., effected an organization known as the "Poultry and Shippers' Association," the object being to secure to the producers the middlemen's profit. So far the experiment has not worked out as was intended and expected. The reason assigned is that no member of the association had funds to handle the produce, and the trade

went into the hands of regular dealers who could handle it. Such a difficulty hardly seems insurmountable. The chief need in all cooperative experiments of this nature is the right man for manager. It may be mentioned in this connection that during the recent egg famine, one of the firms referred to above made several thousand dollars on what eggs they happened to have on hand when the advance in prices came.

W. H. McGrath, of the Never Sink Poultry Yards, sends F.-P. some interesting comments on the condition of the poultry industry in his section: "Poultry is one of the neglected opportunities in our vicinity. Such a thing as a poultry plant as you know them in the east, does not exist here, barring the one we are trying to build up. In almost all cases the farmers' wives manage the poultry. The more they mix the stock the happier they are, especially if they can get a dash of Leghorn blood in the mixture. The lack of common sense in this respect is appalling." Mr. McGrath works at his trade, bricklaying, while building up his poultry farm, which is to be devoted principally to egg production.

J. K. Freed, an enthusiastic poultryman of Baker, Kans., sends F.-P. some interesting statistics of the poultry industry in his (Brown) county. The figures are from the assessors' returns for the year 1897. The value of the poultry and eggs sold from farms was \$50,152. The value of poultry and eggs produced and sold in towns of the county is approximated at \$500. The value of the poultry and eggs consumed on farms is estimated equal to the total sold, or \$50,652. Thus the total poultry product of the county is put at \$101,804. The total value of the poultry and egg product of the state of Kansas for the year ending March 1, 1897, is placed at a little less than \$8,000,000.

Our Bone Cutter Book

treating of balanced rations for all fowls, young or old, will interest any poultryman. It also tells about the Webster & Hannum—the only bone cutter receiving an award at World's Fair, Chicago. Also Clover Cutters and Grit Crushers.

It is free, but may save you many dollars on your feed bill. Write for it.

E. C. STEARNS & CO., Box 4, Syracuse, N. Y.

MINORCAS.

S. C. Black Minorcas, standard bred for layers of large white eggs. Young stock have free range of fifty acre farm, and are strong and healthy, with exceptionally brilliant plumage. For the past 9 years have bred B. Minorcas exclusively. Eggs from Plt strain (imported birds), special matings, 15 eggs for \$2.50; two or more sittings, \$2 for 15. Royal and Cornell strains direct, \$1 for 15; eggs for incubator purposes from above strains \$5 per 100. Stock for sale.

Mrs. GEO. E. MONROE, Dryden, N. Y. Member B. Minorca Club.

Fertile Eggs.

White Wyandottes, \$1.50 per 15; \$6 per 100.
White Plymouth Rocks, \$1.50 per 15; \$6 per 100.
Barred Plymouth Rocks, \$1.50 per 15; \$6 per 100.
S. C. W. Leghorns, \$1 per 15; \$5 per 100.
Pekin Ducks, Rankin, \$1.50 per 15; \$8 per 100.
Broiler eggs, \$5 per 100.

TRIUMPH POULTRY FARM, Montvale, N. J.

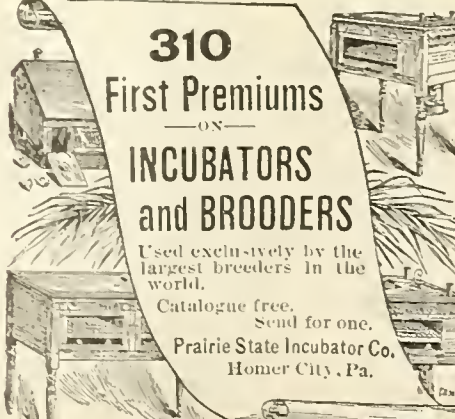
BRED TO LAY

W. WYANDOTTES, B. PLYMOUTH ROCKS.

Carefully bred from dams of standard weight, whose egg laying record for each succeeding generation was individually known to have increased from year to year. Males are all from 200-egg hens, \$1.50 per sitting of 15.

BRICAULT POULTRY FARM, Lawrence, Mass. P. O. Box 68.

310 First Premiums
—ON—
INCUBATORS and BROODERS
Used exclusively by the largest breeders in the world.
Catalogue free. Send for one.
Prairie State Incubator Co., Homer City, Pa.


POULTRY RAISERS
and STOREKEEPERS
Shipping large, clean, fresh

EGGS

To us, will secure highest market price, and prompt return of both their cases and money.

A. M. SMITH & CO.,
121 and 123 So. Market St., Boston, Mass.
We refer to the editor of this paper.

2000 PREMIUMS
were awarded my fowls at 12 State Shows in 1898. LARGEST RANCH in the west. We breed sixty varieties of choice land and water fowls. They are FAIRM GROWN and water fowls. They are strong and thrifty. Send five one-cent stamps for new large illustrated catalogue.
FOWLS & EGGS FOR SALE
CHAS. GAMMERDINGER, Box 42, COLUMBUS, OHIO



THE RELIABLE NEST BOX.

For keeping accurate egg records and pedigrees. Reliable, safe, cheap. Materials cost but 10 cents per nest; used also as ordinary nests. Plans and directions of three styles sent for only \$1.
Circular and testimonials free.

M. L. NEWELL,
Box 179, Denver, Colo.

Suspension Brooder.
(Patented July 26, 1898).
Best brooder ever invented. Different from all others. SWINGS IN THE AIR. Brooding space free of all obstructions. No corners to crowd and smother. Chickens always have pure air and keep healthy.
BOOKLET FREE.
Automatic Hatching Co.,
35 Broadway, Toledo, O.



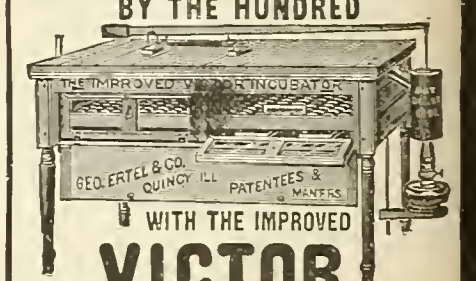
THE NONE SUCH INCUBATORS and BROODERS

The World's Standard Machine.
Surpasses All Others.

"THE NONE SUCH"
A self regulating and fully guaranteed incubator for only \$10. Equal to any high-priced machine on the market. Has improvements found in no other, and made by a reliable concern.
Absolutely the best incubator made. Send for cat.
FOREST INCUBATOR CO., Forest, Ohio.



Hatch Chickens BY THE HUNDRED
THE IMPROVED VICTOR INCUBATOR
WITH THE IMPROVED VICTOR INCUBATOR
It is a pleasure to operate, absolutely self-regulating, needs no watching during day or night. Its hatching qualities are second to none. Thousands in successful operation; the simplest, most durable and cheapest first-class hatcher in the market. A written guarantee is sent with each machine to be as represented or money refunded. Circular free. Catalogue 4 cents. Address
GEO. ERTEL & CO., Patentee & Mfrs.,
Established 1867. QUINCY, ILL., U.S.A.



Linden Poultry Yards.

We are now ready to furnish eggs for hatching from four grand pens of

BUFF COCHINS
—AND—
BUFF ROCKS.

Vigorous, prolific laying stock, at \$2 per sitting; \$5 per 40. Three Buff Cochins cockerels, one 2 year old cock; one B. I. Red cock, all grand breeders, for sale.

C. B. CROWELL,

Circular. Brattleboro, Vt.



OWNED AND BRED BY
GEO. M. LEFFEL

PEN OF HIGH SCORING BARRED PLYMOUTH ROCKS.

[NOTE.—Under date of Feb. 4, 1899, Mr. Leffel writes: "Please find out of breeding pen scored to 188 points by F. J. Marshall at Springfield, Ohio, Fanciers' Association show, Dec. 27-30, '98. Mr. L. K. Felch scored pen for me at Dayton, O., 1889. L. G. Jarvis, Guelph, Can., scored pen for me at Cleveland, O., 1889. I think I stand about on top for highest scoring pens; at least I have seen none lately that scored higher, and I am proud to say I bred and owned all the birds. No breeder has equaled my scores on pens and single birds for six years."]

The Budding of a Poultryman.

Written for FARM-POULTRY.

For some months past I have been interested in watching and furthering the development of a young poultryman, who, I think, has now reached a point which may be called very hopeful, to put it as mildly as possible. The farm where he lives is one of the old style, one where hens have been kept since the memory of the oldest resident, but whereon they have never been known to pay. A place where they "cost more than they come to," if the iterated testimony of the head of the family can be considered good; where they destroy the garden and the stacks of grain, trample the fresh sown fields, leave their nests in hatching time, fall dead from the roosts, and otherwise conduct themselves after the manner of the "utility" (?) bird of the barnyard. The father has no time to care for them, and no inclination to work which smacks of choring. The women folk, never having seen the flocks bring in much, have failed to grasp the opportunity. The children, while fond of the young stock, followed the example set them, of feeding when they thought of it, setting coops in the broiling sun, and watering the suffering broods in a shallow saucer, once a day, perhaps, reaping the usual results of such supposed "care."

Pocket money was a very scarce thing among these farm youngsters, and as I visited this home, I ventured to suggest ways in which the poultry might be made to pay sufficient profit to furnish at least spending money for the children. The mother rather scouted the idea of there being any money in poultry at prices current there, and, if there were, she did not want the children to "own everything." Here, apparently, my desire to make a poultryman out of the lad, met its defeat.

Defeat is sometimes but another way to victory. Last spring I tried a new tack. A sitting of eggs from the finest pure bred stock sped over the hundreds of miles that lay between my home and his. The interest that attached to eggs worth dollars, instead of cents, per dozen, insured them the best care that the boy knew how to give, and, as samples of the most practical poultry papers took occasion to fly that way, also, the schemer's scheme began to develop. Soon came the news that there was a chicken house under process of construction. The lad was pretty handy with tools, yet I wondered much

how his house would compare with the models heretofore always before his eyes. Damp, draughty, mostly sunless, platformless and crowded—they were certainly far enough from what was needed.

In mid-autumn another move was made by the far off schemer. Fifty pounds of the very best meat meal took the train, and was set off at the station nearest the farm. Minute instructions went with it, by letter. Imagine the gratified smile of the schemer when a letter came back, saying: "The paper that came with the meat meal don't say to feed so much every day, as you told me." Why, the boy was thinking for himself. Here was progress, definite and encouraging. It happened that the manufacturer had substituted another and better brand of the meal for the one ordered, hence the discrepancy; but who cared for having had to appear in the wrong, when dribbles of news announced the boy as building the house, yarding his chicks according to prescribed formulas, hanging up cabbages every day in his "hall bedroom" of a house, and, later, getting eggs?

By and bye came the dizzy story that the laddie's hens were laying more eggs than all the rest of the flock together. This phenomenal state of affairs persisted till nearly spring. The boy has reached the state of long trousers and party bills, which he had to pay for himself. The last item in the story reached me a few days ago, when his sister told me that his few birds had paid all his party bills all winter, said parties averaging one a week. Of course, he was given the feed, so that his income was gross, not net; but how many birds do you suppose he had? Just five.

The last item, I said a minute ago; not quite, for the last was this, from the sister: "I did not suppose anything could ever keep Tom away from his meals after the bell rung; but, I declare, when he is fussing with his hens he hardly hears the dinner bell—and, if he does hear it, he doesn't come till he finishes what he is doing for those precious hens."

It is but the old story which some parents never seem to grasp, that an interest must be created from the present standpoint of the child. Begin where he knows, or already has interest; make the matter an object to him to grasp, and he is yours. You can lead him pretty nearly where you will without his suspecting the leading string.

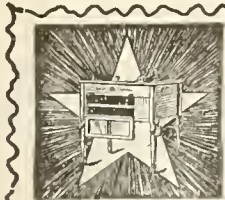
Months ago this boy made up his mind that he would never, no never, be a farmer. Query: Is it yet possible, with the aid of poultry, and a course at an agricultural or

poultry school, to turn his thoughts to the farm as a money maker? Or, as he is an only boy, must we soon hear of another abandoned farm, because farming was made to show him only its hard, hateful side?

MYRA V. NORRIS.

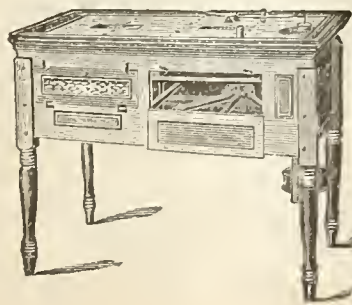
Smoking Out Lice With Tobacco.

I want to tell you how my wife and I got rid of the large lice off our chicks. We used three borrowed hens for sitters, and they were very lousy—and so, of course, were the little chicks. We took them away from the hens, and as we were looking one over I was smoking, and my wife asked me to blow some tobacco smoke on the chick. I did so, and the lice began to come to the surface. An idea. I procured a bee smoker and some cheap smoking tobacco—put some tobacco in the smoker, dropped on a live coal, and smoked the chicks—twenty-seven—by holding one at a time in one hand, and worked the smoke with the other. As fast as they were smoked we put them in the brooder yard, first spreading paper on the bottom of the yard. Well, the lice began to come out and drop on the paper, and the chicks began to pick up the lice. I never saw such a sight. We smoked them again three days later, and found less than a dozen lice. We did not lose a chick, and I never saw chicks grow equal to them; their feed was stale bread, hard boiled eggs, and white sand. I am now ready to try another experiment to get rid of lice from the old hens, and if it works, I will report it.—F. L. BARNEY, in *Poultry Herald*.



The NO MOISTURE kind.

The *Star Incubator* imitates nature more nearly than any other. You do not supply moisture for the old hen; neither need you for our machine. This is why chicks hatched in the *Star* are stronger than those hatched in other incubators. Our guarantee talks—your money back if you want it. Catalogue free. **STAR INCUBATOR CO., Bound Brook, N. J.**



To Do Business You Must Be Up To Date.

Our 1899 improvements place the

Homer City Incubator and Brooder

Far in advance of all competition. Write for catalogue and price list.

BLAIRSVILLE MFG. CO., Blairsville, Pa.
THE POULTRY & FARM SUPPLY CO., Boston, Mass.,
Sole New England agents.

Royal Blue

Was without a question the best Barred Rock that ever lived. He won two blue ribbons at New York. His sons and grandsons have been winners at many of the largest shows in America. 400 "Royal Blue" cockerels and 2000 females for sale at honest prices. If you wish to breed the best Barred Rocks, take the "ROYAL BLUE" line. See ad. back cover.

A. C. HAWKINS, Lancaster, Mass.



119 The Hartford Strain. 119

Single Comb White Leghorns, S. C. Black Minorcas, Barred Plymouth Rocks, W. P. Rocks, White Wyandottes, and Light Brahmas. 119 prizes won season passed. All matings for results. Descriptive catalogue for stamps.

EGGS—Prize pens, \$2 for 15; choice breeders, \$1 for 12; incubators, \$5 per 100. Exhibition birds a specialty. State agent for the Star Incubator and Brooder Co. **ELM POULTRY YARDS, Hartford, Ct.**

FOGG'S

S. C. WH. LECHORNS EGGS EGGS EGGS

15 for \$2; 30 for \$3; 45 for \$4. My yards this season are closely culled, carefully mated, and ought to produce eggs that will produce winners. Send for list of premiums won since 1891. **WOODLAWN POULTRY YARDS, CHAS. J. FOGG, Waltham, Mass.**



A SPECIAL OFFER To quickly introduce my stock into many yards, I offer the eggs of my high bred, large laying, prize winning S. C. W. Leghorns at \$1 per 13, and guarantee 7 chicks. \$2 is my regular price, and this offer may be withdrawn at any time. My layers have averaged 60 per cent for last three months.

GEO. L. GEBEL, Box 75, Danbury, Conn.

Cures Roup.

The evidence keeps accumulating day by day that one of the best methods of treating Roup is that described in Mr. M. K. Boyer's book on Poultry Diseases by the use of our

JOHNSON'S ANODYNE LINIMENT

And why not? Certainly there has not been a remedy used in the last century which will cure colds and sore throat in human beings as quickly as the "Old Anodyne." It is put up in two sizes, 25 cents and 50 cent; the latter is most economical, as the bottle holds three times as much.

Sold by dealers in medicine, or sent by mail, post-paid, on receipt by us of price as above. We will send to any address by mail,

Free, post-paid, Mr. Boyer's book on Poultry Diseases and Treatment.

I. S. JOHNSON & CO., Box 2118, Boston, Mass.

Undrawn vs. Drawn Poultry.

A writer in the *Dietetic and Hygienic Gazette*, says: "The belief entertained by some that the flesh keeps fresh longer when fowls are left undrawn, is not supported by facts. Experiments which we have personally conducted, demonstrated that under precisely the same conditions of temperature and humidity, drawn fowls will keep from two to three days longer than those not drawn."

"The presence of undigested food of the excrementitious substances in animals which have been killed, most certainly favors tainting of the flesh and general decomposition. The viscera are the first parts to show putrescence, and allowing these to remain within the body cannot do otherwise than favor infections of the flesh with bacteria and ptomaines, even if osmosis does not actually carry putrid juices to contiguous tissues. Hunters know the value of drawing birds as soon as possible after they have been shot, in order to keep them sweet and fresh, and to prevent their having a strong intestinal flavor."

Now the above may be and is most of it undoubtedly true, as far as it goes, but there is much to be said and objections to be made about both drawn and undrawn poultry. There was at one time a law in the state of Massachusetts that no dressed poultry should be exposed for sale that was undrawn. Through united effort of the marketmen that law was killed, and modified to read that no dressed poultry should be exposed for sale having food in the crop, but that it might remain undrawn. *The crop must be empty.* Now the marketmen would never have troubled themselves to work hard, as they have done in this matter, unless there was some reason for it.

Personally conducted experiments are one thing; poultry as killed, dressed and handled for market, is another. The marketmen are in the business for what there is in it, and it is for their interest to keep and sell the best. It is necessary to expose their goods for sale, and a carcass of drawn poultry hung in the market stall makes an ideal place for a fly to get into the abdominal cavity out of sight, and deposit its eggs. The result is that the customer finds the carcass "fly blown" or worse, — maggoty. The result is not pleasing to the marketmen or the purchaser. As a matter of fact, opening up the abdominal cavity and removing the viscera exposes a larger surface to bacteria infection, while in the undrawn fowl the infection if any is confined in the intestines, except such of the objectionable matter which may pass through the walls of the intestines by osmosis. If poultry is properly handled before killing, and is properly cooled before packing, there will be very little if any contamination from the empty intestines.

Hunters may draw birds soon after they are shot, but it must be remembered that the birds are killed when feeding, or full fed. Not all hunters draw the birds; many of them simply bleed the bird and empty the crop, and some object seriously to drawing the intestines, — usually experienced men.

When one is dressing a fowl for home consumption, I agree that it is best drawn and thoroughly washed out; as we are able to place it, as soon as cool, in the ice box, which should be perfectly clean; but if the carcass is to be shipped to market, the case is much different. We cannot control the carcass after it leaves our hands to go to market. If it is undrawn, and has any distance to go, it may mould inside; or if a fly does not "blow" in it, there is a large exposed surface, hidden from sight, which may become infected by some means during transit. If mouldy, sour, or fly blown, (if it travels any distance it is pretty sure to be one of these, or all three) it is no longer salable, at least for anything like a fair price, and it is not desirable as food.

The undrawn carcass is objectionable because of the possibility of osmosis carrying taint or poisonous matter to the flesh. This point is exaggerated by writers on hygiene, and those who favor drawn market poultry. Granted that in some cases where fowls are not properly handled, there exists a possibility of infection of the meat, it is not half so dangerous as the many chances of infection in drawn fowls. As a matter of fact, where the bird is

properly handled before killing, the chance of infection is practically nil.

It is imperative in preparing poultry for market that the birds should be confined in a clean coop with absolutely no food for twenty-four hours or more before killing; they should have plenty of water to drink, which aids in cleansing the intestines. Handled in this way, the flesh will be improved, and the viscera will be comparatively free from "excrementitious substances." When the fowl is killed it should be bled in such a manner that the carcass will be well drained of blood. Before the poultry is packed it should be thoroughly cooled — make sure that there is no animal heat left in the carcass. This done as it should be, there will be no danger of a tainted carcass, or infection due to the bird being undrawn.

In dealing with market poultry we have to deal with many unknown factors. So far as I am concerned, I had rather take my chances on an undrawn fowl, no matter how poorly handled before being killed, than to have a fowl that had had the filthy fingers of some person unknown (perhaps diseased) scratching about tearing out the entrails, and following up the operation with washing out the carcass with not overclean water. The chances of infection from such sources are far more numerous than any that may exist from the intestinal contents and possible osmosis. Again, if the intestines are left in, you have the opportunity of learning something about the fowl's condition at the time it was killed, and whether or not it was healthy.

As I have said, drawn poultry, (killed and drawn by yourself or some trusted servant) for home use is one thing; drawn market poultry is quite another matter. For my part I'll take my market poultry undrawn, and I think that observing people will agree with me, and do likewise. DR. WOODS.

Raising Turkeys on the Farm.

A great many farmers' wives raise a few turkeys every year, and for the amount of work, time, and cost of raising, taking everything into consideration, I believe it pays well. I will tell from my own experience how I raised turkeys on the farm "back east" at the old home.

We kept four hen turkeys, keeping the hens if they were good layers and mothers until they were three or four years old — usually getting a fine young gobbler from some other flock, as turkeys will soon be inferior in size and strength if they are inbred. Our turkeys were fed with the laying chickens through the winter, also roosted in same house, but this is not a good idea to have them roost together, as they will fight the chickens, but they need a good shelter to roost under. They usually begin laying in April, and average seventeen or eighteen eggs each. As soon as they would go sitting, we gave them generally seventeen eggs each.

Never try to raise young turkeys with chicken for mother. We made them a good nest, and if they had to be moved from their nest in which they laid, they were set in a box, so they could be shut up a few days. They were let off every day for feed and water. Always give whole grain while sitting. Sometimes a few days before hatching, the eggs were dampened with warm water. When they are all hatched and about twenty-four hours old they were taken off the nest and taken to a small yard which we usually made of three boards a foot wide and ten to twelve feet long, on some clean dry place, or on short green grass, partly in the shade. We fed curd made of sour milk, of which there is plenty on the farm.

They were fed about five times a day for the first week, and after that three times. When about two weeks old, oat meal and barley meal or corn meal were added with the milk curd. We had to furnish them grit, and used broken crockery, pounding fine, and fed twice a week. At night they were put in a clean coop with a board floor, with the mother turkey. Our turkeys were never wild, and so they were easily handled. After a few days old they were allowed to run out after the dew is off the grass. It is better to watch them the first day, as some turkeys will wander away and hide when night comes. As they were all hatched about the same time, they were all put together in a large

coop when the young poult were about three or four weeks old, so that they will run in one flock the rest of the summer. The old gobbler is put with the others, and excepting rare instances will hover the young and fight enemies, as hawks, etc., the same as the mother hen. They were given the whole range of the farm for insects and the stubble fields. We gave them regularly a morning and night feed of the ground grains mixed with skim milk after about half grown. We would have to drive them up at night until about two months old; after that they would go up themselves, and often before that age.

Whenever we saw a thunder shower threatening, our first thought was to gather the turkeys under shelter. If left out in a hard shower they easily drown, even after feathered, and during long rains they were kept in some unused part of the barn or other building. Often in July and August the old hens would go to laying again, and still run with the flock, thus furnishing us with eggs for cooking purposes the rest of the summer. About the middle of September we began feeding them for the market. Usually fed corn exclusively, but sometimes would feed small potatoes cooked and mashed with corn meal, fed warm. They were always fed all they would eat, but had their liberty, never shutting up until the day before killing. They were dressed in the best possible manner, and sent to a city market a few days before Thanksgiving, and I never remember getting a low price. We kept no pure breed. I think a medium size turkey sells better, and will be full grown and plump, while the extra large take longer to mature, and if dressed before fully grown often show pin feathers. Since coming to Texas I have had to make some changes in the raising of turkeys. They do not require so much to be fed them, as they pick up most of their living after half grown. When young the lice and mites will bother if not careful. We also sell them alive. — Mrs. A. W. TRUMBEE, in *Practical Farmer*.

Turkeys.

Setting the Eggs — Early Treatment of the Poults.

One should not be discouraged if a great number of turkeys are not raised, for even the average number, ten young ones from each old bird, gives a very high percentage — over two hundred per cent — on the capital invested and the outlay for food. So that even less than the average increase is profitable; and most thoughtful farmers will agree with me that the insects, grasshoppers, etc., destroyed by turkeys in their wanderings, to say nothing of their fertilizing powers, will repay the cost of their keep.

At the present date, April 15th, very few turkeys have begun to lay. They should not be too highly fed, and if a successful season is expected, the old turkeys should be large, strong and healthy, and should not be closely related to the male bird. At the present time plenty of range is essential, and roomy nest boxes provided in sheds, or perhaps a little straw in unused coops in the orchard or under evergreen trees will soon be taken possession of to furnish nests for the first lot of eggs. At this season they seldom show any desire to go a long distance to conceal the nests. The eggs should be gathered as soon as possible after being laid, so they will not get chilled, and should be kept in a cool, not cold, place. Those who have studied the construction and constituents of eggs, tell us that eggs should not be turned every day, nor turned at all, nor handled any more than is necessary; but be kept in a box or basket where the air is pure, and covered with a cloth; also that they should not be kept longer than three weeks before setting, though they may hatch if kept even longer. However, I should expect stronger and more lively turks if they were not kept any longer than two weeks, and I set just as soon as I get sufficient of them and sufficient hens to cover them, as I always want at least fifteen to twenty turkeys to go with one old turkey. I usually set about three Plymouth Rock hens on seven to eleven eggs each. These hens should be persistent sitters, and have nests in a room where other hens will not disturb them. My ideal nests for sitters would be a row of nest boxes about two to four feet from the ground, and having

a door to swing downward to form a shelf in front when open. Through the front of this door I should like a strip of wire cloth to give plenty of air and a little light to the sitters. When this door is closed the rats will be excluded, as they will steal the newly hatched birds if possible to get at them. The nests should be made of clean straw, and the day before setting the eggs the hen should be sprinkled with insect powder. To do this effectually, one can hang her to a nail, feet upwards, the feathers then open, and powder can be dusted all through them. A dust bath in the room also should be provided. By the time the eggs are set the strong odor of the powder will have escaped, and will not affect the germ. Once a day during the hatch I open the nest doors and feed corn, and also give a supply of fresh water. A room where there is not much hammering or pounding may be best, as we are told one year an entire hatch at the A. O. C. was destroyed owing to nailing of sheeting in the incubating room. If the hens at first are not inclined to leave their nests for food, I place one hand beneath them and carefully lift them from the eggs so none of the eggs may be broken or disturbed more than necessary. I usually leave them to feed, dust, etc., for about an hour, and return to see that two have not taken one nest, or to replace any that have not gone back, and to close the door until another day. As a rule, hens are not so good as turkeys to mother the young poults. While I depend on Rocks to do the hatching of the early chicken, I also depend on having a broody turkey in four weeks after the eggs are set to act as a mother for them. Last year the eggs did not hatch very well, and I had not nearly the required fifteen to put with an old turkey, so I let the first lot remain with a Rock hen, and succeeded in raising them all, but they cast in their lot with a later flock of turkeys when it was time to wander through the fields. I find they are better as foragers, and less exposed to parasites when raised with the old turkeys.

A few days is all that is necessary for the old turkey to be broody, though of course, one cannot quite regulate such matters. I like Rocks best as sitters, and we thus keep the turkeys laying three or four weeks longer. She should be treated with insect powder a day or two before the turks are expected, and when the hatch is completed, all should be put in a roomy coop which is enclosed by a ten foot square pen. The bottom of the coop should be covered lightly with sand or gravel to form the first meal of the young turkeys. A small heap should be placed in the pen, also one of dust, and a fountain of skim milk or water. If the nests have been rat proof, the young ones should be left there until twenty-four hours old, otherwise it is safer to remove them before night to the coop. I have never had a turkey refuse to adopt the young ones, and my most successful lot was twenty-nine hatched by three hens and put in this manner with one old turkey. She succeeded in raising twenty-six to maturity. One died from unknown causes, and two were stolen by hawks. This year I intend to try hatching in incubators, and raising some in brooders. — GYRA, in *The Farmers' Advocate*, Loudon, Ont.

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Our Matings.

We do not expend enough time and thought on our matings. We are working too much in the dark, and especially are we not courageous enough to discard a specimen we have our doubts about.

We have too many females in a pen, and know too little about said females.

An ideal pen is made up of all sisters, the offspring of one pair mated to their sire. If the females very closely resemble each other, and they and their sire were strong in the points of their breed and variety, the result from such a pen should be of much superior uniformity and excellence, and would quickly establish for the owner a family and a strain.

Very few breeders will be content to pick out their best pair or two, and discard all the rest. For many reasons this seems impossible to them. They will scarcely have any eggs for sale, and they are not sure of their ability to pick out their best pair in a breeding sense.

The whole business of the breeding of fowls seems to be at sixes and sevens, as taken the country over; there is no foundation to start from. Such a day will never arrive until there are genuine pedigreed fowls, carried out consistently and honestly. We will use Jersey cattle to show what pedigreering has done, or need simply call attention to it. How beauty, utility and uniformity have been inbred. Mark the word, inbred. Reader, do you know how the Jersey lines run into each other—that there is a cow living today famous for beauty, and an enormous producer of butter, who traces her ancestry lines back ten times to a famous sire?

The great hindrance to pedigreed poultry seems first, to be a lack of the realization of the benefits. Second, the great fear of that bugbear, inbreeding; and third, honesty.

We can have our own little pedigreed family, and no careful and no constantly successful breeder can do his mating year after year and not realize the importance of knowing very nearly, or as nearly as possible, of the possibilities lying in the stock he is mating.

If you are a beginner, begin right. Use the axe on everything you have that is not bubbling over with health and vitality, and make especially sure that your male is a strong, lusty crower, stands well on his feet, with bright eye, is gallant with the hens, and ever ready to fight with any crower in sight. That your hens are the right type, and strike you as feminine. There are always some females with a masculine appearance, which is not pleasing, and should be avoided. Strive always for good head points; in many breeds, especially if the head and more particularly the comb is fine and pleasing, a good impression is made, and half the battle won with the judge.

Now thus having few females left in your breeding pen, be sure and make an especial effort to trace the chicks they breed. Study the pen well; be sure you know them exactly; so well that you have a mind picture ready and exact always.

You may be a busy man, but you must arrange to at least get one sitting of eggs from each female; hatch these separate, and mark the chicks carefully, making a memoranda of it. In the fall there is room for more study, female and her produce. Going through each lot, likely you will find some in each with certain ear marks, often bad; and getting your sire and looking carefully you find that very defect, so trivial you had overlooked it, or, perhaps you will have to go back to sire's sire. If you have studied your females thoroughly, and what you raised from each sitting, you can make a pretty close guess where your other and unmarked chicks originated. Understand, the best way is to know exactly the ancestry of each and every chick; but where the breeding is continued for months, this means much long drawn out careful work and attention, things most of us fanciers cannot give. We may be much disappointed in our matings, or with a particular sire or dam, and yet both sire and dam be all right, only the blood did not nick. Pigeon men understand and practice this most constantly, that it is necessary to learn where the "nicks" come in. If a certain bird does not do well with one mate, they try again and again, and it is frequently that very ordinary birds could not be bought at any price,

simply because their owner has discovered their breeding possibilities.

Always favor a bird in mating that is a good all round specimen, with no prominent faults, to one that is exceptionally fine in some, and bad in others. This mating to opposites, or to cure up faults by opposing perfection, is a lottery, fooling with fire. A bird's breeding possibilities often crops out generations afterwards; and if for some reason you deem it wise to introduce a serious fault to gain some of the exceptional line points in an individual, you can count on having a constant guard against said fault for years afterward.

Not a word have I said about "utility" in our matings so far, because so few fanciers are consistent about this point. Only on paper do they favor "utility;"—not in the home yard when making up these matings; because in many breeds the hen that nature built for an extra good layer does not conform to the show room type, but it reads well in their ads., this "utility," and it goes. Likewise this "pedigree" business.

Until the day comes when there is more consistency, more strict honesty, more careful work among the majority of fanciers, I believe it would be wise to visit the man you are going to patronize for eggs or stock, and with your own eyes and ears gather the true facts, and thereby convince yourself that his claims on paper are valid.—W. THEO. WITTMAN, in *New England Fancier*.

Keeping Up the Quality.

It is a very difficult matter to keep up the quality of the poultry when the policy is pursued of selling or killing and eating the best fowls, and breeding from what is left. This is a sure way of degeneracy, and yet it is one found on many farms. The desire grows for fried chicken as the day approaches, and that desire is sometimes so intense that it calls for the largest and best chicks to fill the bill. The lot is looked over from time to time as the picnics and celebrations go by, and finally when the basket meeting comes along the last of the best chicks are fried and taken to the basket meeting. This is kept up in this manner until the time comes for selling what is not desired to be kept over, and the hen house is invaded in the night with lantern in hand to get some of the "best early chickens" to take to town to sell. A coopful of the best are selected and sold. The culls are left on the farm, and constitute the breeding stock for another year. This is practiced on some farms year in and year out, and the grading which is done is downward instead of upward.

It is very plain to be seen what the ultimate result of such a practice must be. It is also quite apparent what the result would be if the number of breeding birds should be selected first of the best of the flock, and the remaining ones sold for what they will bring. The best should be kept and bred, and if this practice be followed for years there will be a sure improvement in the quality. Just as sure as like begets like, just so sure will this be the result. If you are at the head of the procession that is going the wrong way, fall out by the wayside.—*Homestead, Iowa*.

What we require, first of all, from our hens, is eggs; and there is nothing that will induce laying as early and as continuously as green cut bone, fed about three times a week, as a separate ration.—*Country Gentleman*.

MARKET REVIEW.

Eggs.—Trade in eggs is slow, and prices are easier. Sales of western are made at 13 @ 13½c., and some buyers do not want to pay over 13c. For selected lots for cold storage 13½ @ 14c. is asked, but few sales are made at over 13½c. Fresh nearby and fancy are quoted at 15 @ 15c. Receipts for the week were 32,919 cases, against 19,638 cases the previous week, and 31,782 cases for corresponding week last year. Receipts for April foot up 88,226 cases, against 149,386 cases last year. Stock in cold storage, 26,369 cases, against 81,006 cases same time last year.

Poultry.—The market is quiet, though prices are firm for choice fresh killed. Turkeys, frozen, 12 @ 16c. Chickens, fresh, 15 @ 20c.; frozen, 10 @ 14c.; fowls, fresh, 10 @ 15c.; iced fowls, 9½ @ 10½c.

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All done.

Next morning look, and see all lice and mites lying dead on roost-boards.

Many customers report finding them in piles a half-inch deep where each fowl roosted the night before.

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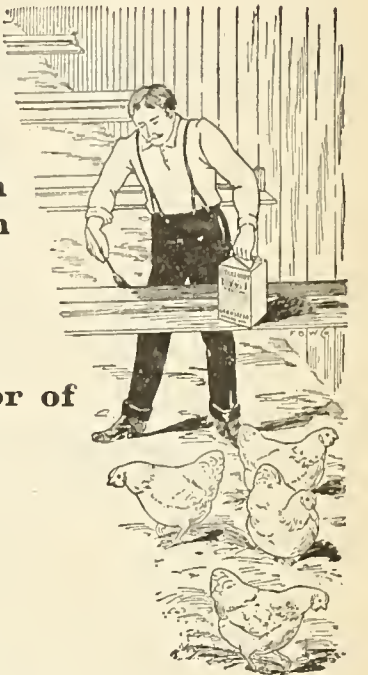
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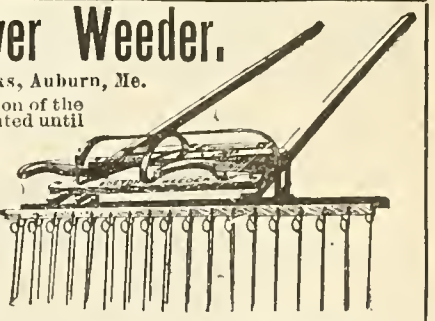
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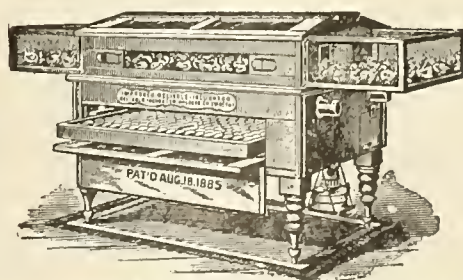
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Some Averages for Six Months.

Average Egg Yield per Month of Hens and Pullets, Selected for Comparison from Records of Members of Experiment Club.

(Fractions are approximate).

P. No.	Variety.	Age.	No. of hens.	October.	November.	December.	January.	February.	March.
1.	Barred Plymouth Rocks,	pullets,	12	5.5	7	10.7	17	11.7	19
2.	Barred Plymouth Rocks,	yearlings,	10	5.4	4.4	3	6.3	9	13.3
3.	Barred Plymouth Rocks,	June and July pullets,	50	0	0	.8	14	6.5	18.6
4.	Barred Plymouth Rocks,	(yearlings, 30) (two year olds, 10) (three year olds, 10)	50	3.1	2.8	9.2	5.3	1.3	8.5
5.	Barred Plymouth Rocks,	yearlings,	12-8	6.7	.7	0	2.1	6	7.1
6.	Barred Plymouth Rocks,	April and May pullets,	9	1	3.8	5.2	7.3	6.4	16.2
7.	Barred Plymouth Rocks,	March and April pullets,	14	.1	.6	9.8	17	15	23
8.	Barred Plymouth Rocks,	yearlings,	12-30	11.2	9.3	9.2	8.6	9.2	14.6
9.	Barred Plymouth Rocks,	May pullets,	15	0	.8	1.5	4.6	8	15.4
10.	Barred Plymouth Rocks,	hens,	15	1.7	1.6	2	6.4	5.7	18.2
11.	White Plymouth Rocks,	hens,	15-17	13.9	8.3	4	3.6	7.6	18.2
12.	White Plymouth Rocks,	pullets,	24	4.2	4.3	9.1	2.6	16.3	19.3
13.	White Plymouth Rocks,	pullets,	15	0	4.5	16.1	17.6	14.7	21.8
14.	Buff Plymouth Rocks,	pullets,	3	0	0	16	21.3	19.6	19.7
15.	Buff Plymouth Rocks,	pullets,	8	0	.2	5.6	11.6	9.8	13.7
16.	White Wyandottes,	April pullets,	18	3.8	10.3	8.7	12.8	13.6	17
17.	White Wyandottes,	pullets,	5	0	2	13.8	17.4	16	21.4
18.	White Wyandottes,	yearlings,	6	9	.8	.5	6	6.2	16.3
19.	White Wyandottes,	yearlings,	10-14	2.6	.3	3	4.6	8	8.9
20.	White Wyandottes,	Feb. and March pullets,	10	7	9.4	14.8	10.8	5.7	16.8
21.	White Wyandottes,	yearlings,	2	8.5	6.5	11	5	5	16
22.	White Wyandottes,	April and May pullets,	4-3	0	0	3	6.5	4	21.5
23.	White Wyandottes,	yearlings,	15	.8	1.6	4.5	18.2	12.5	18
24.	White Wyandottes,	pullets,	15	0	0	.4	8	11.5	20
25.	White Wyandottes,	hens,	12	7	2.3	2	2.3	2.9	10.6
26.	White Wyandottes,	pullets,	12-9	12.2	12.2	1.5	5.6	9.1	11
27.	Buff Wyandottes,	pullets,	12-14	0	3.7	5.8	2.5	8.3	12.4
28.	Buff Wyandottes,	pullets,	30-21	1.2	9.7	10.9	14.1	13.5	18.5
29.	Silver Wyandottes,	hens,	16	.3	5.8	8	9	7	14.1
30.	Silver Wyandottes,	May pullets,	18-17	0	0	.1	8.5	4.6	16.2
31.	Silver Wyandottes,	April pullets,	40	0	.4	3.9	14	9.7	12
32.	Golden Wyandottes,	yearlings, 4; pullets, 9,	13	4.2	10.9	15.5	13.7	10.5	14.7
33.	Brown Leghorns,	yearlings,	4	0	0	.7	5.2	3.5	11
34.	Brown Leghorns,	pullets,	18	0	5.6	9.5	7.8	12.2	19.1
35.	R. C. Brown Leghorns,	hens, 4; pullets, 13,	17-16	5	3.3	1.1	8.8	10.1	13.5
36.	White Leghorns,	yearlings,	6	0	.6	5	5.2	8.3	11.3
37.	White Leghorns,	April pullets,	12-10	0	2	4	14.1	6.6	10.7
38.	White Leghorns,	April pullets,	18	5.8	17.2	19.5	14.3	11.3	16.8
39.	White Leghorns,	hens,	25	3.6	2.5	4.4	5.1	10.2	16.8
40.	Buff Leghorns,	pullets,	8	0	9.1	8.7	11.9	17.2	27
41.	Black Minorcas,	May pullets,	4	0	2.8	6.5	9.2	10.5	18.5
42.	Black Minorcas,	hens,	5	0	6.4	8.4	14.8	10.8	15
43.	White Minorcas,	hens and pullets,	175	0	0	0	2.1	7.3	15.8
44.	Anconas,	yearlings,	12	0	1.3	2.5	1.5	4.7	9.2
45.	Pit Games,	hens and pullets,	16	2.8	1	.7	3	10.5	10.8
46.	Light Brahmas,	hens,	10-14	11	6.7	5.7	4.2	6.2	15.5
47.	Light Brahmas,	hens,	10	0	0	0	0	0	.2
48.	Light Brahmas,	March and April pullets,	22	.1	.01	.5	0	.6	8
49.	Black Langshans,	February pullets,	4	0	.7	4	6.7	5.2	12.2
50.	Buff Cochins,	pullets and hens,	15	0	0	1.5	4.4	14	13.3
51.	White Cochins,	pullets,	6	0	2	12.8	17.2	8.6	16.6
52.	Partridge Cochins,	April pullets,	7	0	3.5	10.6	12.8	9.6	11.6
53.	Black Cochins,	hens and pullets,	31	1.7	.9	2.3	6.3	7.8	10.8
54.	Black Cochins,	May pullets,	30	0	.5	2.2	10.2	13.8	17.1
55.	Black Cochins,	May and June pullets,	30	0	0	1.8	12.6	10.6	15
56.	Black Hamburgs,	hens,	5-9	9.6	3.2	6	13	10	19.6
57.	Rhode Island Reds,	yearlings,	5-4	15.4	13.2	6.5	.5	4.7	19.7
58.	Mixed varieties,	pullets,	40	2	7.5	13.5	14.5	12	19.9
59.	Mixed varieties,	yearlings,	25	10.2	8.5	6.5	9.4	2.1	8.6
60.	Crosses,	yearlings,	11	12	8.1	1.1	0	1.3	8.9
61.	Crosses,	pullets,	12	0	.1	1	3.3	7.5	9.1
62.	Grades,	March pullets,	25-24	8.6	12	13.3	5.6	12.4	18.8
63.	Grades,	March and April pullets,	26-15	4.5	3.2	10.1	14	10.3	20.5
64.	Mongrels,	yearlings,	12-22	4.6	1.2	2.9	4.5	8.9	16.6
65.	Mongrels,	pullets,	39-45	0	3.2	2.2	1.2	4.3	8.5

FARM-POULTRY
PRACTICAL EXPERIMENT CLUB.

In this department all published matter pertaining to the Experiment Club and its work will appear. We want every member to feel perfectly free to ask questions and make suggestions. Discussions of topics suggested to members by their own record sheets are especially desired.

Some Averages for Six Months.

We give our readers this month a table of average egg yields for hens and pullets selected from the reports of club members. The sixty-five pens here reported may be considered as representative of the entire number of pens reported by the club, of which owing to lack of space we are unable to give a complete summary. The table will prove interesting in comparing the work of the different varieties, and the average number of eggs laid by pullets of several ages, as compared with the averages for adult fowls. As a rule the pullets lead as winter egg producers.

Pens 1 and 2 had same care and feeding; also the following pens as coupled were fed alike: 3, 4; 5, 6; 7, 8; 11, 12; 21, 22; 23, 24; 25, 26; and 60, 61.

The table shows no remarkable egg records, and the difference in the averages of the several varieties is not very great; as a whole it shows about the same work as done by last year's club.

One pen of Light Brahmas (47) makes an exceptionally poor showing, — just why, is not apparent from the report. The owner is disgusted with them, but having kept them all winter without getting eggs, has determined to try them for six months longer to see if they will make summer layers.

Taken as a whole the club members are doing good work, and are sending in carefully kept records, but the two hundred eggs in a year hens are few and far between.

The first column of the table gives the number of the pen, the second the variety, the third the age of the fowls in pen as given in reports, fourth column the number of birds in pen, and the remaining six columns show the average egg yield per bird per month for each of the six months which have been reported for.

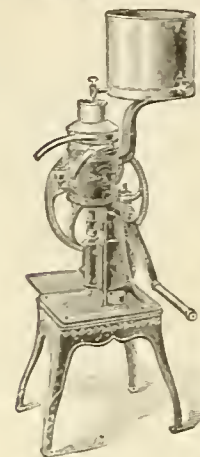
Is a Stayer.

Editor Experiment Club: — No doubt you have wondered why my March report did

not reach you, and in order to have you understand, I will have to give you a brief history of two and one-half years back.

September, 1896, I bought five and a quarter acres of land for the purpose of going into the poultry business — (I have had some experience) and to make the first payment I borrowed some money. I was then living in — county, Pennsylvania, and the land was in — county, New York. Remained one year where I was, as I had a good chance and hoped to make some money on the farm I was on. A drought came on and ruined my crops. Seeing no chance to better myself, I hitched up my horse and loaded my wagon with sixty-five head of chickens and eleven ducks, nearly all thoroughbred stock, and drove to my land in New York, a distance of two hundred and twenty miles. This was in August, and it was excessively hot. It took four and a half days to make the trip. Lost two birds on the road, but the rest came through all right.

There were no buildings on my land, but I hired some more money to buy lumber, (I know you are thinking that I will go under, but wait). Staid four weeks. My son, who is a carpenter, was with me, and we did all

"ALPHA-DE LAVAL"
CREAM SEPARATORS.

De Laval Alpha "Baby" Cream Separators were first and have ever been kept best and cheapest. They are guaranteed superior to all imitations and infringements. Endorsed by all authorities. More than 150,000 in use. Sales ten to one of all others combined. All styles and sizes — \$50. — to \$225. — Save \$5. — to \$10. — per cow per year over any setting system, and \$3. — to \$5. — per cow per year over any imitating separator.

New and improved machines for 1899. Send for new Catalogue containing a fund of up-to-date dairy information.

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FREE SAMPLE COPY . . .

Of the best practical poultry paper mailed to any address. Send yours on a postal.

THE POULTRY ITEM, Fricks, Pa.

A Poultry Proverb:
Cold Hens Never Lay

Poultry-houses that are lined with

CABOT'S SHEATHING



are wind and frost proof. A scientific insulator, ten times as warm as rosin paper, and costs only about one cent a foot. Indestructible by decay or vermin, and antiseptic. Incomparably the warmest sheathing made.

Send for Samples and Circulars.
Samuel Cabot, 7 Batterymarch St., Boston, Mass.

SPRAYERS.

Cleanliness is essential to success. Nothing more necessary. Do you want a Knapsack Sprayer to do your whitewashing and disinfecting? A great time and labor saver. Write today for prices, etc. to

CHAS. F. ALLEN, Beverly, N. J.

LARGELY CUT PRICES

Superior Goods.

Puritan Poultry Supplies

Direct from the famous Puritan Poultry Farms, the largest and the most elegant plant in the world. Puritan Chick Food, Marvellous, the identical food product which raised for us 36,000 pair chicks the past season.

Freshly Ground Bone and Oyster Shells. Send for free price list, showing decided cut in prices, and save 25 per cent for cash with orders.

PURITAN POULTRY FARM,
Stamford, Conn.

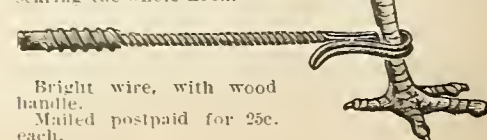
White Rocks.

If you want the best, send to Merrimac River Poultry Yards. We have the birds that win, as our record shows, 57 prizes won at three shows this season, Boston, Haverhill and Amesbury. Eggs from these prize winners \$2 per 13; \$5 per 40; \$12 per 100. White Rocks exclusively.

E. H. & S. H. GEORGE, Groveland, Mass.

Fowl Catcher.

Don't frighten your fowls by grabbing for them. Use this handy implement, gently catching them by the leg, without searing the whole flock.



Bright wire, with wood handle.
Mailed postpaid for 25c. each.

Patented.

J. E. TIMBERLAKE, Mfr., Jackson, Mich.

our own work, except two days that I hired a carpenter to help; we put up a house 16 x 24, with three living rooms, lathed and papered; built a hen house 10 x 32, papered outside and in. Then I left my son in charge, and took the train home; then packed up and brought my family back here to our humble little home. Went to work that winter, and earned what I could. When spring opened, my horse took sick and died; as she was valuable it was a heavy loss to us. We had an artesian well drilled costing \$100, and then the mortgage came due. Was able to pay the interest and a part of the principal, and the parties said they would wait another year for the rest, but I foolishly did not have it put in writing. The result was that in six months they demanded the money, and gave me one week to settle in or lose the place. We couldn't give up the place and all hopes of having a poultry plant, and I told my wife we would sell the stock to meet the mortgage. Selected eight of my choicest Barred Plymouth Rocks to keep, and then loaded up the rest and took them to market, selling them for eight and one-half cents per pound alive. Borrowed enough money added to what I received for the hens to meet the mortgage, and paid it off. Earned enough to pay what I borrowed, and now our little place is all our own, and no one has even the scratch of a pen against it. Having to sell the stock was the reason the report was not sent to you.

When the stock was sold we had on hand one hundred and seventy eggs, and we put them in an incubator which I built last year, and in five days tested out forty; the remaining one hundred and thirty hatched ninety-three chicks; eight were cripples, and one died; the rest are strong and doing well in a home made brooder.

We have bought some thoroughbred Barred Plymouth Rock eggs, and April 15th set 248. Going out of the business? Not until I am laid away in a wooden box. I want to have my name placed among the foremost utility breeders in the land, and I am bound to get there if sticking to it and trying will do it.

We are starting Belgian hares, too. Have three does and a buck, which we received January 1st, and have twenty-two young, and a doe due on April 18th. E. K.

Egg Type in Brown Leghorns.

Mr. Editor:—In the light of what experience I have had with the S. C. B. Leghorn, I have concluded that the egg type is just this—a wedge shaped fowl, looked at either from front or side; of course the shape is more striking when looked at from the side; legs of medium length; in fact the business hen is not an extremist in the matter of shape in any way. In experiment with a number of strains I have found I never got a very heavy layer from among large hens, very long legged hens, or squatty birds; the best layers have always been hens with medium length bodies, medium length legs, and medium sized combs.

If you breed for eggs you will get standard shape, except possibly there would be a chance for an argument with some judges on length of shank. Some judges would consider leg too short, others would think it just about right.

About comb, not one of my heaviest layers has ever had a comb that fell over far enough to obstruct her sight, and have had records of 257, 249, 224, 221, 218, 200 eggs per hen a year, and lots of others down to 101. The big layers have always had medium combs. The larger records I have given are easier written than secured; it takes *blood* and *good care* both to secure them.

I have before me a copy of *A Few Hens*, where the "Eureka" is criticised in this way: "I often find two hens in the box, and one egg." "Now which hen laid the egg?" Now that is easy, if people would think instead of jumping at conclusions. For example, I find hens number 708 and 35 in same nest, and one egg; mark egg simply so it can be identified, and remove it. Leave No. 708 in nest; put No. 35 in another one. When you visit nests again, if you find egg in nest with No. 35, you know that No. 708 laid the first one, or vice versa. I never thought that any objection to the Eureka at all. M. J. HEWITT.

Faulty Care and Brooding.

Mr. Editor:—We would be willing to give a good deal to learn how to raise chicks. Since

December 1st we have hatched about two thousand chicks, and have on hand at present writing, (April 17th), from this lot about one hundred, and these are fast disappearing.

Hatching.—They always come out on time, and we average about 75 per cent of fertile eggs. They are healthy, plump and strong.

Brooders.—We have used all kinds, and are now using a sectional pipe brooder. Have several makes also. The brooder house is 30 x 14; alley 3 ft. wide; height of building 6 ft. x 4 ft. Built of matched stuff on outside, then paper, then four inch air space, then rough boards, then paper, then pine boards. Roof is tin, with paper and boards beneath, and is ceiled on inside. Floor of brooder house is of sand. Before putting in the brooders, we filled in with fine sand about six inches deep all over the floor of building.

Temperature.—The house kept at 50° to 70°. We aim to keep it at about 60° to 65°. The temperature of floor of hover is 70° to 80°, and taken directly from the pipes is 90° to 110°. However, we get the same results when we have run it lower or higher. The temperature of other brooders was 90°, and was gradually reduced.

Food.—First food is rolled oats, which is continued until they refuse to eat it, the quantity gradually becoming smaller. Also introduce stale bread as soon as possible, millet seed, and a cake made of bran, middlings, corn meal, and beef scrap. This cake is mixed and baked according to the rules of the best authorities. We feed only what they will eat up clean, and feed from three to five times daily the first week, and then three times only. Cracked wheat and millet seed is thrown in the sand and in chaff for them to scratch for.

Water.—Is given them in a quart can placed in a saucer; changed about every day or two. They always drink lots of it after three or four days. Water is given from the start.

They have plenty of grit and shell. The brooders have been cleaned every day, every other day, and once a week, and we see no difference. The floor is always dry. The chicks seldom crowd for the first few days, but after that they commence to crowd, and the weakest are always trampled to death.

From the fifth day the trouble usually commences, about half dying by the fifteenth day. Out of four hundred we have found as high as sixty dead in one night; they usually die at night. Some die in the run. They are almost always clogged up at the vent, but not all. The crops of the dead chicks are invariably empty, yet they will come out to eat and drink as long as they can stand, and have good appetites.

Can you help us? We take about ten poultry papers, and have read almost all the books printed on the subject, and have given our close and special attention all to no purpose.

We have a hatcher and brooder combined, and the chicks placed in this grow fine. We have kept them in two weeks, and have only found one or two dead. Same food and care. This has bottom heat principally.

We think we ought to raise 90 per cent, but we don't raise one per cent. We wrote to two incubator and brooder manufacturers, but they said they could not help us, and one wrote that they were "at their string's end" in this case. M. P. C.

Mowrystown.

The fault is evidently not with the breeding stock, but lies wholly with the system of care and brooding. Fresh air under the hovers is wanting; single hot air brooders, which supply a constant circulation of fresh warm air under the hover, and only fifty chicks or less in a brooder, would give better satisfaction than any application of the pipe system. A tight brooder house must be frequently aired out, as the lamps exhaust the life sustaining oxygen in the air. Carelessness in regard to the temperature under the hover for the first three weeks is a fatal fault. The chicks should run where they can get on the ground in the fresh open air whenever possible, but they must be watched and trained to return to the brooder to warm up. With a little patience in teaching them the first few days, they soon learn to take care of themselves. Fresh air and sunshine is of vital importance at all seasons of the year.

It is a mistake to feed young chicks any

NON-POISONOUS SURE PROTECTION



CHLORO-NAPHTHOLEUM

CHICKEN CHOLERA.

Tried four different kinds of medicine for chicken cholera and died, and could not do anything until I used Chloro-Naphtholeum.

Mrs. JOHN CLERSON, Commerceville Ind.

WE WILL SEND YOU A QUART

After receiving so many urgent requests and inquiries, we have decided to send for a short time, to the readers of Farm-Poultry, a full quart can of Chloro-Naphtholeum, express paid for 65 cents. Send for our little pocket book on the Diseases of Poultry, sent free.

This is a rare chance. Chloro-Naphtholeum is a money-saver. Thousands of poultrymen have proved this, and you are neglecting an economy. If you don't prove it now, send for a quart can at once. It will save money for you. Send for free book. Address all orders and letters.

WEST DISINFECTING CO.,
E. TAUSSIG & CO., Proprietors, 29 E. 59th St., New York.
Rare Chance for Agents. Write at once.

kind of food until they "refuse to eat it." They should never be allowed to have food standing before them all the time, and all food should be removed as soon after feeding as they show lack of interest in it. Keep them hungry. Too much sameness in the food is a bad fault; when food palls the chick's digestion is sure to suffer. An insatiable appetite is often a symptom of digestive trouble. Meat scraps must be cautiously fed to young chicks; they vary greatly in quality, and often cause "pasting up behind" if carelessly used.

You make a fatal mistake in the way you manage the drinking water. Your method of attending to this one detail is sufficient to account for all the trouble. Little chicks should have fresh water often, at least twice a day. As you change the water only "every day or two," it cannot help getting foul. One poultry plant which we visited last spring was losing a large percentage of chicks from "pasting up behind;" they were not careful about the drinking water, and the result was fatal disorder of the digestive organs. Careful cleansing of the drinking vessels every day, and fresh water supplied from three to five times daily, rinsing the water dishes each time, resulted in a wonderful decrease in the death rate.

Stale bread moistened with fresh milk, (whole or skim), makes one of the very best first foods. All the reading in the world will not help you unless you apply what you learn from reading. The advice we give you to be careful about having pure clean fresh drinking water, and to use care in brooding and feeding, has appeared many times in this and other poultry papers.

HARDY'S WHITE WYANDOTTES.

I have some fine 1898 hatched pullets that I will sell in lots to suit. Buy now and get some chickens from them. C. H. HARDY, Groveland, Mass.

The King of Wh. Wyandottes,

NEPONSET,
WINNER AT BOSTON

Of "Special for Best Shape Male," was bred in our yards, and heads one of our pens. Every purchaser will receive eggs from the same line breeding as produced this famous bird. Good size, yellow skin, and brown eggs. Eggs per sitting, \$2; 3 sittings, \$5. Write. H. M. STOWELL, Box 204, Walpole, Mass.

STOCKING'S

Pekin Ducks, . . . Weber and Rankin strain; White Wyandottes, Hunter and Mack strain. Eggs from finest stock in the country offered at the following low rates:

Duck eggs, \$6 per 100; \$1.50 per 11.
W. Wyandottes, \$6 per 100; \$1.50 per 13.
J. F. STOCKING & CO., Montvale, N. J.

\$261 in genuine Confederate money for only 20 cents. SOUTHERN STAR, Atlanta, Ga.

JOHNSON'S ANODYNE LINIMENT

was originated in 1810 by an old Family Physician. It is recommended by physicians. It has cured more diseases and relieved more suffering than any other remedy. - It is the oldest in use.

Safe, Soothing, Satisfying.

Every Mother should have it in the house. It is for Internal as much as External use. Relieves and promptly cures every form of inflammation.

Our book on INFLAMMATION, mailed free. 25 and 50c. I. S. Johnson & Co., Boston, Mass.

Gardner's (13 first prizes) BARRED PLYMOUTH ROCKS, (13 first prizes)

Won at Madison Square Garden, Rochester, Syracuse, and Watertown, N. Y., 13 1st prizes out of a possible 19, competing with the best birds and best breeders from seven states—more than double the number won by all of my competitors.

A record never equaled by any breeder of Barred Rocks in America.

These prizes were not won before the flood, or before bars were considered necessary, but since Sept., 1898. This proves that my Barred Rocks are not "back numbers." I did not borrow my prize winners, but have them in my yards as well as most of the birds that produced them. Eggs from twenty grand yards; mating list tells you all about them. Free.

M. S. GARDNER,
PHILADELPHIA, Jefferson Co., N. Y.

DON'T BUY A PIG IN A POKE.

Don't buy any incubator and pay for it until you have given it a thorough trial.

Some incubators are made only to sell and were never intended to hatch chickens, and you pay for them only when fully satisfied. They are the easiest to handle; a child can run one successfully. We send the largest catalogue and best treatise on incubation and poultry culture published for 5c. Plans for Brooders, Poultry Houses, etc., for 25c.

WE SEND THE Von Culin Incubators ON TRIAL

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VON CULIN INCUBATOR CO. 13 Adams St. Delaware City, Del.

FARM-POULTRY

Semi-Monthly.

PUBLISHED

The 1st and 15th of each month
BY

I. S. JOHNSON & CO., Boston, Mass.

A. F. HUNTER, Editor.

Price, One Dollar per year, in Advance.

Six months 50 Cents.

Single Copies Five Cents.

One Sample Free.

Add for postage to foreign countries, 48 Cents extra yearly, and 24 Cents to six months subscription rate. Remit by P. O. or Express money order, cash or postage stamps, in registered letter. Address all letters, and make all payments payable to I. S. JOHNSON & CO.,
22 Custom House St., Boston, Mass.

Green Wrapper

When You Receive FARM-POULTRY in a Green Wrapper your subscription ends with that issue. Therefore, please send cash \$1.00 to renew—for—

We Shall Always Stop the Paper when the time for which it is paid has expired; so that to avoid missing numbers all should renew promptly.

Get a Couple of Neighbors to club with you, and we will send the paper to the three parties a full year for \$2.50, cash or stamps, if all sent at one time.

Change in Address—When ordering a change in the address, subscribers should be sure to give their former as well as their present address, or we cannot make the change; our list is kept by towns first.

Canvassers Wanted in every town to solicit subscriptions. Terms sent on application. Liberal commission paid in cash. Send for our Terms to Agents.

THE ADVERTISING RATE

Is 30c. per Agate Line Each Issue.

Fourteen Lines in every Inch of single column space. Seven average Words make one line.

DISCOUNTS FROM ABOVE RATE depend entirely upon the amount of space used by an advertiser within a stated time. Send for Rate Card.

FORMS CLOSE.—Ads. must be received by the 5th and 20th of the month to insure insertion in the issues of the 15th or 1st, respectively.

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EDITORIAL.

Will He Live Up to It?

In the *Reliable Poultry Journal* for May, under the heading, "One of Poultrydom's Greatest Needs," we find a ringing call for a higher standard amongst poultry papers, which cannot but have the cordial endorsement of every well wisher of the poultry industry, and it says:—"Pardon our saying so, but a poultry paper must have standing. IT MUST BE BELIEVED IN." (Caps are R. P. J.'s.)

Thanks, brother! That is what we have long believed and practiced, and we want to call your attention to a little matter, still unsettled, in which you manifestly do not practice what you preach. Now, if you will only come up to the standard you have set for others, so that you can be believed in, that little matter of the Norwegian Poultry Farm article can be set right. We have been trying for some months to have you put yourself right before the poultry public, and you persistently ignore our requests. Perhaps, though, you do not intend this call for a higher standard amongst poultry papers to be retroactive; possibly it only dates from May 1st, 1899, and cannot be applied to the statement you made five or six months ago, and have repeated two or three times since. How is that?

If your sudden outbreak of virtue is retroactive kindly take up that false charge of our having stolen that Norwegian Poultry Farm article. We have explained again and again that we printed that article at the request of the Reliable Incubator Company, and the credit was changed to make it read as though written for FARM-POULTRY at the suggestion of the Reliable Incubator Company. We have given quotations from the R. I. Co.'s letters which clearly prove this, (which letters we stand ready to produce if necessary), and yet you not only have not withdrawn the charge of "stealing" the article, but you have added the charge of "lying" about it. How does

that "square" with your call for poultry papers that can be believed in? How can poultrymen "believe" in you or your paper when that proved false charge of yours stands unrecalled, and our repeated requests for the retracting of it are ignored?

That little outbreak of yours was exceedingly unfortunate,—for you. Like Banquo's ghost, it "will not down," and when you set forth upon your next annual advertising canvassing tour, many a poultryman will recall that unretracted false charge you made against F.-P., and you will find that the observing, thinking poultrymen have somewhat less "confidence" in you than heretofore.

You are right, brother R. P. J. A paper, and the man behind it, "MUST BE BELIEVED IN," (caps yours), and we are advising you for your own best good when we advise you to retract that false charge you made against us, and set yourself right before your readers.

Practice what you preach, brother.

As to Poultry Fattening.

We have received a good many letters asking about poultry fattening, mentioned in the letter of J. A. McDonald, of P. E. I., published on page 134, April 1st F.-P., and asking what food is used, and where cramming machines can be obtained. It may be well to state that that whole subject of "Specially Fatted Poultry" was carefully gone over in the columns of this paper, beginning Nov. 15th, 1897, and running up to March 15th, '98, inclusive, the editor of FARM-POULTRY having spent the summer of 1897 in England, France and Belgium, making a study of the poultry fattening work there.

There is a most complete book upon the subject, also, "Poultry Fattening," by Edward Brown, F. L. S., which we will have sent to any address, postpaid, upon receipt of the price, 50 cents.

So far as we know there are no cramming machines made in this country, and those would have to be imported from England.

A Monster Egg.

Dr. A. A. Howland, of Worester, Mass., sends us a monster egg that was laid by one of his White Wyandotte pullets that was nearly a year old, (egg laid April 25th). The egg weighs 6 ounces, measures 7½ inches around the middle, and 8½ inches around it lengthwise. It looks more like a goose egg than the egg of a modest hen.

The only hen's egg that surpassed it in size, of which we have knowledge, was one reported on page 124, May, 1890 F.-P. That egg, laid by a Barred Plymouth Rock hen, was 8 inches around the center, 10½ inches around it lengthwise, and weighed 8 ounces. On breaking the shell there was found within it another egg, perfect in all ways, measuring 6½ by 6 inches, and two double yolked eggs besides. The hen that laid it had been laying double yolked eggs every other day for some time, and evidently wanted to do a week's stint at once.

Cut Bone for Ducks.

A reader living in Pennsylvania asks "what proportion of cut fresh bone to mix with the duck feed." Can any reader answer this question?

Most duck men of our acquaintance feed beef scrap or meat meal for animal food, and we are unable to answer the question about cut bone.

Should Answer the Letters.

That there is urgent need for more business-like methods amongst poultrymen who solicit through advertisements and circulars the patronage of the buying public, has long been evident, and has frequently been the subject of written protest. Talking of this a few days since, with a breeder who answers every letter on the day it is received, he took up a letter he had just received, (and which enclosed a cash order), and read as follows:—

"I must give you a little compliment. I decided to invest in — this year, and picked out for the first three to send to yourself, — of —, and Mr. —. As Mr. — stated in his ad, the price, I sent him the money a week ago today, but enclosed a stamp for answer to — of —, the same as to you. Now you are the only one of the three who has as yet seen fit to reply. I am in the hen business simply for the pleasure there is in it, and not

for profit, as I have plenty of other business. I have been breeding fine poultry for over thirty years, and I have always found this same dilatory way of doing business; it seems to be characteristic of nearly all 'hen men.' As a postal card costs only one cent, and takes but a few seconds to write, it seems as though there was no reasonable excuse for such delay."

The names mentioned in the letter are both of men prominent in the poultry world, and one's first thought would be that it is impossible they should be so negligent of their own best interest. They pay money for advertising space in which to solicit the patronage of the public; why not promptly answer inquiries which the advertisement has enlisted? It seems almost beyond belief that they do not answer the inquiries promptly, and yet the evidence that they do not is conclusive, and better business methods are essential if they would build up and hold a trade.

We published, in December 15th, '98, F.-P., an article (written for the *American Poultry Journal*) by Mr. Frank B. White, who is a shrewd observer of men and methods; and the closing section of that article especially applies here. We reprint again that part of the article, and especially commend it to our advertising patrons; it deserves careful study, and its precepts can be followed with profit:

"How to Take Care of the Inquiries."

"Too many advertisers satisfy themselves by simply sending a catalogue or printed circular to an inquirer. That is a very cold uninviting method. Next to a personal visit, a warm letter, bright and crisp and right to the point, is the best. It may have cost you 25c., 50c., or \$1 to secure that inquiry. What is the inquiry? It is the result of your investment in advertising; it is the inquirer introducing himself to the advertiser as a possible customer; it is one interested in your proposition as you make it in your advertisement. If it cost you 50c., is it not worth your while to add by way of correspondence 10c. or even 20c. additional? After you have sent your catalogue do you simply fold your hands and wait for the inquirer to plead with you to sell him your stock, or are you anxious and concerned that he should make a purchase? If the latter, you will see to it that within a couple of weeks time he is reminded of the fact that you have complied with the condition of your advertisement, and that his obligation to you begins, because you have met your conditions—promising him to advise him of what you have to sell—and he is your debtor; you have sent him the information, and he should either purchase your stock or tell you why. In short, I would not allow an inquirer to escape without receiving at least four letters.

"You may say that this is a wild and extravagant proposition, but those who have tried it know that it is not. I would handle every inquiry as if the success of my business depended upon making a sale to that particular individual. I would suggest friendly communications always, yet at the same time urgent. Each time you write emphasize some particular point of your business, and refer to different phases of the question, so as to thoroughly utilize the opportunity.

"You may infer from this that I am strongly of the belief that the advertising is only half-done when the newspaper has done its part; the other half must be done by the advertiser. Advertising does not pay in many instances, simply because it is only half-done; the advertiser fails to avail himself of its privileges.

"Be sure to handle your correspondence in a plain, business-like way. Answer all questions carefully; be concerned about your customer's interests as you are about your own; consider that his success augments your success. You have a right to expect future results, which is largely the profit on your advertising.

"When we all get this idea and principle thoroughly in our minds (and most important of all—in our practices), advertising will pay the poultryman, and poultry breeding as a business proposition will begin to grow substantially."

The Egg Prospects.

The price of eggs has eased off a little, but still holds 2 @ 3c. higher than a year ago, for western, and strictly fresh are 3 @ 4c. higher than same time last year. As we

noted in last number, this continued high price is preventing dealers putting eggs in cold storage, the stock already put in being a little over 26,000 cases, as against 81,000 cases at same date last year. Should this state of things continue it will have a decided effect upon the price of eggs next winter, as a shrinkage of 25 to 33½ per cent in cold storage stock would mean an increased demand for fresh laid eggs, and that increased demand will mean higher prices. There were about 140,000 cases of eggs put in cold storage last year, of which 81,000 cases were put in before May 15th, nearly 60 per cent of all. At the present rate of putting in the probability is that there will be not more than half to two-thirds as many stored as last year.

The Egg Type Hen.

There is not a little interest in, and study of, the egg type hen, and some valuable hints upon that subject are to be found in Mr. Hewitt's letter in the Experiment Club reports in this number. He tells us the egg type Leghorn hen "is wedge shaped," in which he agrees with other observers; for example, Mr. Silberstein's great laying Light Brahma pullet, (now a hen) being noticeably wedge shaped, the butt of the wedge being the posterior of the bird, and narrowing towards the front.

Here is room for observation and study. We all want to improve the laying quality of our birds, and "an eye" for an egg type hen will be a substantial help in this direction.

Letter Postage is Two Cents.

We have a letter from a party in Chicago, asking about a book on milk making, and enclosing a stamped and addressed envelope for reply, the envelope bearing a one cent stamp only; and the letter itself has but a one cent stamp on it. As we do not believe in violating the postal laws our Chicago friend is still waiting for a reply, and will wait some time, probably; and if he sees this he will know why we haven't written him in reply.

Defrauding the postoffice of half the postage due on a letter is pretty small business, and men capable of such meanness ought to be complained of to the authorities.

A Few Compliments.

Is Invaluable.

Your journal, FARM-POULTRY, is invaluable to anyone interested in poultry. P. P. H. Litchfield, Ct.

Likes It Best.

We have been a subscriber to FARM-POULTRY for the past year, and like it best of any poultry paper we have ever had.

Verbank, N. Y.

M. M. V.

The Key Note to Success.

Enclosed find money order for one dollar, for renewal of my subscription to FARM-POULTRY. I think F.-P. the key note of success in poultry raising, for both pleasure and profit, and I find much pleasure in perusing its pages.

Mobile, Ala.

B. Z. C.

"A Daisy."

I have taken FARM-POULTRY for two months, and think it is a daisy. E. C. T. Milo, Mich.

Gets Help From It.

I have been a reader of your valuable paper, FARM-POULTRY, for a number of years, and have got a great deal of help from it.

Bethel, Vt.

E. M. C.

By Far the Best.

I subscribed for FARM-POULTRY and six or seven other poultry publications about three years ago. I read all of them, and I am satisfied that FARM-POULTRY is by far the best poultry paper, giving the most accurate and most valuable information of all the poultry papers which have come to my knowledge, and which I had an opportunity to examine.

Mauston, Wis.

C. H. GROTE.

Is the Best.

I am a constant reader of your valuable paper, which I buy twice a month at Jackson's book store. I appreciate it very much. Have taken several other poultry papers, but yours is the best.

A. G.

Rochester, N. Y.

ANSWERS TO CORRESPONDENTS.

Correspondents who enclose stamps for reply receive immediate answers by mail. When no stamps are enclosed questions which are of general interest and have not recently appeared here are printed with answers in this department. Several correspondents sometimes write at about the same time to ask the same question. Of course only one inquiry is printed. Look for the answer to your question, not for your initials and residence.

Brassiness in a P. Rock Cock.

Mr. Editor:—I would like to know if brassiness is a bad feature for a two year old B. P. Rock cock. He came from a dealer who does a great deal of advertising, and we went on his reputation, but are badly disappointed. J. T. P.

Olbers, Ohio.

Something depends upon what you want to do. If you are breeding for show points, brassiness is objectionable. If you are breeding for eggs and market poultry, brassiness is no injury,—rather the contrary, because it indicates yellowness of skin, it being the yellow pigment essential in the rich yellow skin which makes brassiness. Brassiness is more likely to show itself in a cock than in a young bird, and sometimes crops up in the most unexpected places. If you were disappointed in the bird, and thought him not what you had a right to expect, you should have written the breeder of whom you bought him directly he had arrived, and he most probably would have made it good by either returning to you your money, or sending you another bird in his place. You have no right to complain, however, after you have kept the bird a month or more; that is equivalent to accepting him.

Poultry in North Carolina.

Mr. Editor:—Why is it that I do not see any ads. of breeders of poultry in North Carolina? Are there drawbacks to poultry raising? If so, what are they? I am thinking of locating in that state.

Port Clinton, Ohio. E. C. C.

We have noticed the absence of advertisements of North Carolina breeders, and know of no reason for it other than the non-progressiveness of the natives, and that difficulty obtains pretty much all over the south—we might say in the north, too, as you will observe in the communication, "This Should Encourage the Farmers," on page 186, May 1st F.-P. You will see there how the Maine farmer who is succeeding with his hens is looked at askance by his non-progressive neighbors.

We would think the central and western section of North Carolina excellently well adapted to poultry raising, and the many visitors from the north in that section in winter should make a good market. Both the Carolinas appear to be particularly cursed with a race war, and we have recently seen it stated that people were immigrating from the state, which is a bad symptom.

Heating a Poultry House.

Mr. Editor:—How can I heat a long poultry house in a cold climate? I intend to keep Leghorns and Minorcas. I read something about this in one of your last year's numbers; I believe that it stated that it was best to use radiators. How many for a double house about one hundred feet long?

What do you think of the idea of putting sheet iron on the inside of a house, so as to have it double walled, and to put wool packing between the air space? Would you prefer sheet iron to plaster or wood? G. R.

Chicago, Ill.

Generally speaking, it is not best to heat a poultry house; but in central and western New York poultrymen who keep Leghorns and Minorcas have stoves in the houses to take the chill off in very cold weather, to prevent combs freezing. The great danger with a heated poultry house is that it is overheated, and the birds are debilitated, weakened by being kept too warm; then they take cold easily and roup comes.

We would not build a double house one hundred feet long, if by that you mean double width, with pens on each side of a central walk. That is a very poor plan of poultry house. If we had a poultry house one hundred feet long which we wanted to heat, we would put in a hot water heater and run pipes the whole length at the back, taking great pains, however, to run the heater only in very cold weather, and then only just enough to keep the temperature from falling below freezing.

Your double wall plan is all right, but it seems expensive; most poultrymen have to

consider the cost of such buildings. We would prefer some such plan as making double walls to the roosting room of the scratching shed house, or double walls for roosting apartment in scratching pen house, plans of which were given in May 1st F.-P. We would not, however, pack the wall with wool packing, or sawdust, or any other filling; we would prefer a dead air space. We would prefer the sheet iron to either plaster or wood.

More Sick Hens.

Mr. Editor:—I have two Black Langshan hens that are very sick. They are purging a great deal, and the discharge is quite green. They are also much stuffed up in the chest, and make a noise similar to a baby with the croup. Please tell me what I can do for them. T. M.

Ashton, R. I.

Get some of Clapp's one grain tablet triturates, each tablet representing one one-thousandth of a grain of arsenite of antimony. Give the sick hens each one tablet three times daily until cured.

Liver Disease.

Mr. Editor:—I have lost several hens this spring with what I call liver disease. The livers are enlarged and have light spots on them. Can you tell me what causes it, and the remedy?

How do you make your ventilators—only in the top of the house, or way down by the floor? S. B.

Winterport, Maine.

Fowls have been overfed. Feed less; make them exercise more, and allow plenty of green food. Give fifteen drops of tincture nux vomica in each pint of drinking water.

We do not use ventilators in our houses, but ventilate the houses by giving them a thorough airing daily by throwing open the doors and windows and letting in a volume of fresh air.

Incubator Questions.

Mr. Editor:—I have been a constant reader of your paper for two years, obtaining it from our news dealer, and have saved every number but one since I began reading it. I have learned from its pages a great deal about the care of poultry, but I have not learned yet how to secure a good hatch of chickens from an incubator. In December I received an incubator and proceeded at once to test it. I put in 18 eggs and got 9 chicks. In January I put in 54 eggs and got 28 chicks. In February I put in 39 eggs and got 1 chick; and in March I put in 49 eggs and got 4 chicks.

The incubator is run in the cellar, where the temperature is about 50 degrees, and it is a dry cellar. Is a

cellar a good place in which to run an incubator? I do not see why I should be able to get very good results in cold weather and such poor results in better weather. The machine ran good, the temperature being 103 degrees during the whole three weeks. The eggs did not have any dead chicks in them, and I conclude that it must be the fault of the eggs. Do you think such a cellar as I describe a good place for the machine? C. L. O.

Waterbury, Conn.

Yes, your cellar ought to be an excellent place for an incubator, if it is well ventilated. Eggs to hatch well must have fresh air, and one of the difficulties in an ordinary cellar is that it is shut up close year in and year out. Put an incubator in such a place and the lamp soon exhausts the oxygen, and the embryo chicks in the shells have a hard time.

You tell us absolutely nothing about the machine, whether it is hot water or hot air—and there is considerable difference in the hatching methods of the two. The fact that there were no dead chicks in the eggs would indicate that your trouble was in the eggs rather than in the machine. If the eggs had been fertile, they would either have been added or had dead chicks in them. If they were absolutely clear at the end of the hatch, the trouble was in the male bird not fertilizing the eggs, and the poor incubator is not all to blame.

The fact that you got a fifty per cent hatch

in December and January, indicates that the incubator is all right, or was all right then; and the condition of the eggs points to the fault being in them, and not in the machine.

Eggs Were Deserted.

Mr. Editor:—I have a hen that has been sitting four days, and today I found her sitting on the floor, off the nest, from which she had apparently been frightened. The eggs were quite cold on the outside. Do you think there is any chance of the eggs hatching?

Fall River, Mass.

F. R. S.

Something would depend upon how long the hen had been off the nest, and how thoroughly chilled through the eggs had become. At that early stage of the hatch eggs cannot stand exposure as they can after they have been incubated a couple of weeks.

We have heard of a hen being off the nest ten or twelve hours on a day when the temperature was near zero, and you would think the eggs would surely be frozen, and yet three-fourths of them hatched good strong chicks—the only apparent effect of the exposure being a delay of about one day in the hatch.

In such a case as you describe we should let the hen sit for a few days, then test the eggs for fertility and strength. If they are very liquid they probably will not hatch.

GOOD HATCHES



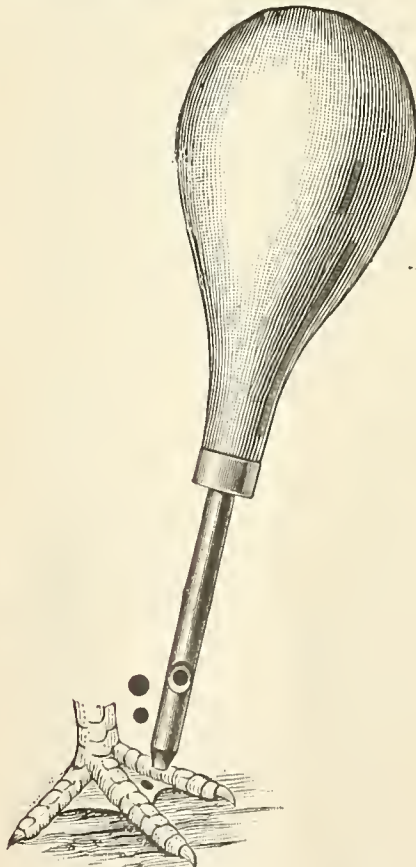
Result from keeping the breeders clean and comfortable. We breed Barred Plymouth Rocks, lots of them; use Death to Lice Powder; sell eggs for hatching. Note results: Eugene K. Gerry, Sanford, Me., writes: March 26, '99.—"Hatched 25 chickens out of 27 eggs that you sent me, and am well pleased with them." P. Dempsey, Cortland, N. Y., writes: April 3d, '99.—"Hatched 24 strong chickens from the two sittings you sent me; not a deformed one in the lot."

YOU SET HENS

On good eggs, and they will do the rest. Dust them well with Death to Lice, and they will do their best. No sitter can settle down to business with lice and mites swarming around the nest. Nothing like Lambert's to fix them. It positively will not injure anything but vermin and bad smells.

TO MARK CHICKENS

Correctly, you need a good punch. We illustrate one that is made for us from tool steel, and hardened; then well handled. It will do more and better work than any other marker on the market. 25c., postpaid.



HEAD LICE

Are what kill so many little chickens each year. If yours do not grow, pick out the drooping ones, and look on the top of their little heads and see what you see. A timely application of Lambert's Death to Lice Ointment will fix these pests, and cause the chick to brighten up at once. 100 doses 10c., postpaid.

DEATH to LICE REMEDIES.

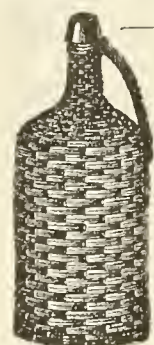
"Powder" for dusting fowls and sitters, 5 ounce sample, 10c., postpaid; 48 ounce, 50c.; 100 ounce, \$1, by express from here or nearest agency.

"Ointment" for head lice on children or chickens, also scaly shanks on fowls, 10 and 25c., postpaid.

"Special" for making a liquid louse or mite killer, 4 ounce, enough for one quart, 10c.; 16 ounce, 40c., postpaid.

Agents' Outfit, \$3. Books, "How to Set a Hen," and Full Particulars, Sent Free.

D. J. LAMBERT, Box 800, Apponaug, R. I.



THE JUG IS FREE.

We hold this special sale of California Wines for a special purpose—to become better acquainted with our public. It is the largest offering ever made in New England. The wines are the product of the best vineyard in sunny California. They have been carefully and fully matured, skillfully handled, and are guaranteed absolutely satisfactory in every respect.

Dealers, Hotels, Restaurants and Families will find this an exceptional opportunity to secure a supply of rich, pure and healthful wines at the lowest prices. They are sold with our personal guaranty for quality. You can send your order by mail, express, telephone or telegraph, and it will be promptly filled.

Per Gal.

First Quality Port Wine, in jug (jug free) \$1.00

First Quality Sherry, in jug (jug free) 1.00

First Quality Angelica Wine, in jug (jug free) 1.00

Wm. Creden & Co.
IMPORTERS,

94 Essex Street,
BOSTON, - - - MASS.

Halving Sills and Plates.

Mr. Editor:—I notice that you gave the sills and plates of the incubating house as 18 feet long, and say you "I have an idea to put together at splices and ends." Does not this reduce the length of the house just one-half the length of the splice?

I wanted to build two of these houses together, but think I must have the sills and plates a little over 18 feet for halving, so as to give me two houses 18 feet long. A. H. W.

Chicago, Ill.

We make the sills and plates 18 feet, splices included. Most of our dimension lumber comes 14 or 16 feet lengths, so that necessarily we have to splice two or three times in each 36 foot section. For two houses we make sills and plates 36 feet, of course losing the length used in splicing, but splicing for convenience. We have seen sills and plates simply butted together, and a piece of furring nailed on to serve as splicing, and that answers every purpose, but makes a little less workmanlike job than halving.

Eggs Must Have Been Infertile.

Mr. Editor:—I am in trouble with an incubator. I keep a few hens, and got a Bantam incubator to help hatch the chickens. I followed the directions as sent by the manufacturer.

At the end of 22 days from when I put the eggs in, I broke them to see what was wrong, and there was no sign of a chicken in any. There was no smell about the eggs, but they were dried up a little. The white and yolk were separate, not mixed together. The first week the temperature ran a little high once or twice, but not more than a degree or two, and not for long. I tested the thermometer under a hen, and it showed 103 degrees. I got the incubator to 103 degrees before putting the eggs in, and after putting the eggs in it took about nine hours to get it back to 103 degrees. Would like to set another hatch, but feel afraid to till I know what the trouble is. If you can give me any reason so I can avoid it next time I will be thankful for it. A. R.

Wilkesburg, Pa.

As you described it, the trouble is not at all in the incubator, but in the eggs, which must have been absolutely infertile. Eggs which are absolutely clear at the end of three weeks in an incubator which is run at 103°, or close to it, have never been fertilized at all. If your eggs had been fertile, they would either have hatched chickens, or you would have found the chickens dead in the shells; or the eggs would have been addled, and "smelled to heaven" when broken. The germ of life is the germ of decay, and the egg will decay directly the germ has started, if the germ dies; that is, it is dead germs that cause eggs to rot. An egg which has no germ of life in it will remain perfectly clear for months, and if kept in an incubator at or about 103°, will gradually dry away until there is nothing left in it but a little fibre.

You will see, then, that the trouble was not at all with the incubator, but with the eggs. Consequently we are wholly unable to advise you as to whether your incubator will hatch. It certainly cannot hatch infertile eggs; nothing in the world can do that. There must be a germ there before the chickens form.

Sundry Questions.

Mr. Editor:—1st. Please explain the "double" and "single" mating system. I have never been able to find anyone who could do so.

2d. What are Bucks County fowls?

3d. What are White Wonders, and are they any good?

4th. What are Sherwoods?

5th. Are R. I. Reds as good all round fowls as P. Rocks or Wyandottes? B. O.

San Diego, Cal.

1st. The double mating system is mating one line of stock to produce cockerels of high excellence for show purposes, and another line of stock to produce pullets of high excellence for show purposes.

The single mating system is where males and females, as nearly as possible standard color and markings, are mated together to produce both cockerels and pullets.

Pullets raised from cockerel matings are almost always off in color, and vice versa, the cockerels raised from pullet matings are more or less off in show points. They are, however, desirable for continuing the cockerel or pullet mating lines of breeding.

There is no little opposition to the double mating system, as for example, you will see in the article upon that subject, page 159, April 15th F.-P.; and most breeders who practice it are more or less dissatisfied with it; still, they feel obliged to practice it, because their competitors do so, or because their stock has been bred along those lines, consequently is unfitted for single mating breeding. There

are breeders who believe they can produce just as good show birds by the single mating system; but the probability is that in close competition the double mating breeder would be a point or two ahead.

2d. Bucks County fowls are a mongrel variety, which have grown up from an indiscriminate mixing of several varieties. There are two or three lines of mongrels called Bucks County, but those more generally accepted as entitled to the name are of a yellowish color, somewhat resembling R. I. Reds, but larger.

3d. What White Wonders are we do not know, since the originator of them never would tell. They are popularly supposed to be a cross of White Wyandottes and White Coehins. They had a considerable popularity a few years ago, but seem to be "going to leeward" now.

4th. The Sherwoods are a result of mixing White Games and Light Brahmas for many generations.

5th. Yes, R. I. Reds appear to be a splendid all purpose fowl. They are very hardy and great layers, but we think would be improved by increasing a little in size, bringing them up to about Wyandotte weight.

Eggs or Broilers, Which?

Mr. Editor:—1st. The price of eggs here ranges from 12½ cents to 30 cents per dozen. Broilers from 50 cents to 60 cents per pair when three months old. Which would be the most profitable of the two lines to engage in?

2d. Is there any danger of getting Leghorn pullets too fat for egg production, if fed largely on corn or on an abundance of food of any kind? R. J. M.

Ontario, Canada.

1st. We should advise some good allround variety like the Wyandottes or Plymouth Rocks, and go in for eggs and early summer roasters. There would be precious little if any money in broilers, at the prices you quote.

2d. Yes.

Beets. Horse Radish.

Mr. Editor:—1st. I read in FARM-POULTRY that it was a good plan to cut beets in halves, and nail the halves to the sides of the poultry house where the fowls can reach them. I tried it, but my hens will not eat them. Can you tell me the reason?

2d. Do you think that horse radish leaves would make good green food, provided it was kept cut down so that the leaves would be tender? Would it injure them in any way? H. C. B.

Spragueville, N. Y.

1st. Fowls are always shy of strange food, and that is why they did not touch the beets. Turn the end side of beet towards the fowls, and try starving them to it for a meal or so. After they once get a taste of the beets, and find out that they are good eating, you will have no trouble except to get beets enough to supply their wants.

2d. Horse radish would be good in addition to other green food by way of variety. It will do no harm if you do not feed too much of it; too much of anything of that nature is worse than none at all.

Best Kind of Land.

Mr. Editor:—Will you kindly tell me if the following place would do for a poultry farm, to be run after the plan described in April 1st F.-P., called "Poultry on Five Acres?"

The land is not high or gravelly, and it is deep black loam, and has a hen and brooder house on it; but the question in my mind is, could I raise poultry successfully on that kind of land? The place has a drain through the center of it. Sand and gravel can be had near by, and if by liberal use of the same I could do all right on that place I wish you would tell me so. If you think I had better pass this place by and look for sloping sandy land I will do so. There is about five acres in the place. W. F. D.

Somerville, Mass.

Your description is rather vague, but implies that the land is low and swampy. If it is it would be poor land to locate poultry buildings on. It would probably be all right in summer, when the moisture mostly drains off, but the autumn, winter, and spring would be trying times, when moisture is naturally superabundant, and on low swampy land would be doubly so.

If we were planning to build on low land, we would raise the sills of the building a foot and a half above the ground level; fill in with stones at the bottom, and gravel or sand on top.

Dry sandy loam is much the best for a poultry location. If the ground is slightly rolling or sloping so that it gets natural drainage, so much the better. Here in New England there is an abundance of rolling or sloping land, so there is no need of locating a poultry plant on low ground.

BREEDERS AND MARKETMEN.

OUR REQUESTS:—We make two requests of our subscribers. One is when writing our Advertising patrons always mention FARM-POULTRY. Another is if you ask them questions, always inclose a stamp. If you observe both of these requests it will benefit you amazingly. It shows that you mean business. Remember, "Molasses will catch more flies than vinegar," and those who observe it are served first.

A BAD WICK is worse than none. Use only the Sunlight Carbon Wick, 10 cents for sample. S. G. Robinson, printer F.-P., 257 Atlantic Ave., Boston.

A BARGAIN. Eggs \$1.25, 13; \$3.40, from 2 pens each. Gold, Silver and Buff Wyands, also stock. Under date 3, 13, '99, Gingers Bros., of Turner's Falls, Mass., "Rec'd the Sil. Wht. cockerel. He was just as you represented him to us." 2, 21, '99, John Ryland, Bridgeport, Conn., says, "Golden Wht cockerel arrived and is perfectly satisfactory." 3, 10, '99, P. D. Schofield, Woodstock, N. H., "Rec'd the Silver Wyandotte cockerel, and he is a beauty." Not one complaint this season. F. S. Tenney, Peterboro, N. H.

A. P. ALLEN, Wesleyville, Pa. Lt. Brahmas, B. P. Rocks, S. C. W. Leghorns, W. Coehins, S. S. Hamburgs, Pekin ducks. You can order eggs directly from this. \$1 per 13; \$2.50 per 40; \$4.50 per 100. Bronze turkey eggs, \$1.50 per 10.

BUFF LEGHORNS, Arnold and Shepherd strains. Eggs \$1 per 13. Geo. A. Hurlbert, Cuyler, N. Y.

BURDICK'S Buff Rocks, good size and color. Eggs, \$1 per 13. P. W. Noyes, Mystic, Conn.

C. S. CULLUM, Mendville, Pa., breeds Pekin Ducks, White Coehins, S. S. Hamburgs, S. C. White Leghorns, B. P. Rocks, and Bronze Turkeys. Fowls for sale, and eggs in season. Pit Games, eggs and fowls; write for wants.

HOUDANS. No stock. Eggs in season. A. W. Tyler, 79 Andover St., Peabody, Mass.

HURLBERT'S Buff Leghorns are large size and fine even buff color. Eggs, \$1 per 13. I guarantee 10 chicks from each sitting. Geo. A. Hurlbert, Cuyler, N. Y.

IF YOU are looking for birds that combine show qualities and utility, try my S. C. W. Leghorns. They have won their share of prizes at the leading shows for years. At Boston, '99, on 2 entries won 2d hen, 2d cockerel. Eggs, \$1.50 sit.; \$2.25 2 sit.; \$3 3 sit.; \$8 per 100. C. H. Annable, Danvers, Mass.

JODREY'S SILVER WYAN. won more prizes in New York and Boston, '99, than any other exhibitor—18 prizes on 16 entries. In 3 years, including 9 shows, 112 Silvers exhibited, every bird won. Experts call my birds the best laced birds in the U. S. If you want the best, give me a call. Circular free. Eggs \$3 per 13. John C. Jodrey, Box 146, Danvers, Mass.

KNIGHT'S R. C. B. Leghorn eggs, 15 for \$2, from best pens, including 1st pullet at Boston; 1st and 2d at Beverly; also 1st pen at Amesbury and Beverly. Other pens, \$1 for 15; or \$5 for 100. Geo. A. Knight, Peabody, Mass.

\$1 PER 13 from high class Buff P. Rocks, Buff Leghorns, White Wyandottes, R. C. Brown Leghorns, Buff Coehins, Bantams. Fowls have grass range. W. J. Wiberley, Peekskill, N. Y.

ROSE and Single Comb Black Minorcas, prize stock. Eggs from Single Combs \$1 per 13; Rose Combs \$1.50 per 13. Geo. A. Hurlbert, Cuyler, N. Y.

WHITE Wyandottes exclusively. Early prolific laying strain, dark brown eggs, bred for practical purposes. Eggs 13, \$1; incubator eggs, \$4 per 100. Stock in season. P. D. White, No. Attleboro, Mass.

WHITE Wyandottes, prolific layers of large brown eggs. W. E. Maek, Woodstock, Vt.

WHITE WYANDOTTES, strong, vigorous, prolific laying farm raised stock. Eggs from 10 choice pens \$1 per 13; \$3 per 50; \$5 per 100. White P. Rock eggs same price. A few 9 lb. cockerels \$3 each. Geo. A. Hurlbert, Cuyler, N. Y.

W. WYAN. Eggs \$1 per 13; \$6 per 100. The best of layers. W. F. Stroud, Merchantville, N. J.

WYANDOTTES, White and Buff. Circular free. Rush Vaughan, Woodstock, Vt.

WIL Wyandottes exclusively. Farm raised brown egg strain, 200 birds. Eggs at half price, \$1 for 13. Cir. free. Victor D. Fraser, Woodstock, Vt.

WHITE WYAND. My eggs won 1st in brown egg class in St. Johnsbury and Woodstock, Vt.; Milford, Mass.; Mid-Cou., K. C. Mo.; Washington, D. C.; Mad. Sq. Garden, and Boston. Bred for utility and beauty. W. E. Maek, Woodstock, Vt.

BUYERS' DIRECTORY.

CLASSIFIED ADVERTISEMENTS only will be printed under this heading; no advertisement admitted containing less than TWO lines; no display other than the initial word or name allowed; no limit to length of ad.; an advertiser can divide his copy and put the matter under as many headings as he wishes; all space used except classified headline, to be charged at a uniform price of 25 cents per line each and every insertion; no less price per line for any number of lines or times inserted; copy will be changed often as desired; about seven ordinary words will make a line; all parts of lines charged as one full line; the headlines will be arranged alphabetically, as in a "business directory."

BANTAMS.

BUFF COCHINS, At Gloucester, 1st cockerel, 1st hen, 1st pen. Eggs \$1 per 13. L. G. Butman, Rockport, Mass.

BASKETS.

BASKETS. The best thing out to ship eggs for hatching in. Sizes, one sitting, 7c.; two sittings, 8c.; 50 eggs, 10c. each. One dozen assorted lot, \$1. Niagara Farm, Ransomville, N. Y.

BRAHMAS.

L. T. BRAHMAS, large, vigorous farm bred. Eggs \$1 per 13; \$5 per 100. Liberal discount on larger orders. George Howard, Easton, Mass.

L. T. BRAHMAS from best strains in the world, viz., Silberstein's Hartness Farm stock. Prices of eggs reduced after June 1st. Fred B. Rodman, 142 Shepard St., Lynn, Mass.

BREEDING STOCK.

S. C. B. LEGHORNS, Buff P. Rocks; great show record; fine specimens of both varieties; prices right; free circular; old and tried reliable breeder. Geo. H. Gallinger, Fabius, N. Y.

1776 Farm, Warner, N. H. Br. egg prolific laying standard W. Wy., Bar. P. Rocks, Lt. Brahms, C. I. Games. Large farm raised stock \$1 to \$2. Eggs 13, \$1.25; 30, \$2; 48, \$3; 96, \$5.

SHOOK BROS., Spring Mills, Pa., breed Bronze and Wild turkeys, Wh. Chinese geese, Pekin and Rouen ducks, and leading varieties of poultry.

BARRIED Plymouth Rocks and Buff Coehins; 29 prizes at Framingham, Milford, Beverly, and Lynn. Eggs \$2 per 13. Stock for sale. Trowbridge & Estabrook, Newton Upper Falls, Mass.

R. C. B. Leg. and B. P. Rock cockerels, and Pekin ducks. Eggs. V. Chase & Son, Reading, Mass.

W. C. B., Polish, W. P. R's, B's, Min. Ind., Ga., S. I. ea. E. S. Lamberson, Frankfort, N. Y.

FOR SALE, one Bronze tom, direct from Geo. Wolf, \$7; 1 Barred Rock cock, direct from Wm. E. Bright, \$4; 1 S. I. Wyandotte cock, \$2. T. D. Schofield, Woodstock, N. H.

COCHINS.

BUFF Coehins, young stock for sale; eggs \$1 per 13. C. J. L. Ware, So. Keene, N. H.

PARTRIDGE Coehins are not in it with my R. I. Reds. Geo. H. Adams, Chatham, Mass.

BUFF Coehins. Best pen I ever had. Eggs \$1 per 13. L. G. Butman, Rockport, Mass.

DOMINIKES.

LARGE, vigorous prize winning strain. Eggs \$2 per sitting. W. H. Congdon, Oak Lawn, R. I.

DUCKS.

MAMMOTH deep keeled first prize Pekins. Second to none. Eggs, \$1.50 per doz.; \$6 per 100. Book orders early. H. G. Worth, Nantucket, Mass.

PEKIN Duck eggs, from blue large birds \$1 per 13; \$3 per 50. Geo. A. Hurlbert, Cuyler, N. Y.

PEKIN duck eggs (Pollard, Maybrook) \$1-11; \$5-100. Alf. Leeson, Box 118, Pt. Chester, N. Y.

LAYING Pekin ducks, hatch of 188, in lots to suit; cheap; quitting the business. Address: Gettysburg Poultry Farm, Gettysburg, Pa.

PEKIN DUCKS. Do you want laying stock for next season? If so, buy your birds now and know you get early hatched birds. We have on hand 300 March and April hatched, and will sell cheap, either for present or future delivery. Write for prices. Robt. W. Emerson Poultry Farm, Westville, N. J.

EGGS.

50 C. per doz.; \$3.50 per 100. Wyckoff strain White Leg. eggs. Cir. free. S. J. Bishop, Cheshire, Ct.

WHITE Wy., extra dark egg str., bred for eggs, \$1 per sit. Wm. C. Raymond, Bridgewater, Vt.

LINDEN LAWN Farming Co., Olney, Illinois. Breeders of Wy., Wh. Leg., Pekin ducks, Bronze turkeys. Orders booked for eggs from choice matings.

WYANDOTTES, Sil., Gol., Bl., Wh.; eggs, 15, \$1.50; 40, \$3. (Buffs, 15, \$2); for incub., 100, \$4, from selected heavy layers of leading strains, Hawkins, Hunter, Tarbox, Mattison, Keller. In December got 3450 eggs; in January 5785. Cockerels, \$2 to \$4. S. B. Patton, Box 128, New Castle, Pa.

WHITE P. Rocks, Buff Wyandottes, winners at Gloucester, '98, first cockerel, first pullet. Eggs from same pens I use myself, \$1 per 13; \$5 per 100. Stock for sale. John D. Bowen, 218 Washington St., Gloucester, Mass.

BUFF ROCK eggs from prize winning stock, prolific layers of large brown eggs, \$1 per 13. Mrs. M. E. George, Main St., No. Groveland, Mass.

BUFF and White Ply. Rocks. Eggs from best pens, \$1.25 per 13. E. F. Ely, Brooklyn, Pa.

W. P. Rock eggs from choice stock. 15 eggs \$1, 100 \$4. Wm. F. Hinds, De Ruyter, N. Y.

EGGS for hatching, S. C. Bk. Minor, B'd P. Rocks, and Wh. Wyand., \$1 for 13. W. I. Lane, 86 Mt. Vernon St., Dover, N. H.

WHITE Wyand., and S. C. Brown Leg. Business and beauty combined. My strain will give you eggs or prizes. Eggs 15 - \$1; 35 - \$2 for rest of season. Cir. free. F. W. Calvin, Washingtonville, O.

EGGS from W. P. Rocks \$1 per sitting; \$3 per 100. Large high scoring stock. Mrs. A. T. Chamberlain, Westboro, Mass.

A REDUCTION. Eggs at \$1 per 13, from prize winning White Wonders, L. Brahna and Black Langshan. H. W. Heath, Plymouth, N. H.

WHITE Wyand., Golden Wyand., B. Lang, and B. Minorca eggs for hatching, \$1 for 13. Cir. solicited. W. B. Townsend, West Coxsackie, N. Y.

EGGS from farm raised up to date Buff Wyandottes, R. G. Buffinton sir, Buff Brahmas. After May 1st, \$1 per 13. White Minorca ducks, headed with 12 lb. drake. Eggs \$1 per 13. White H. and B. turkeys. Eggs 20c. each. Arthur Waite, Rockville, Mass.

W. C. B., Polish, Black Min., W. P. Rocks, 15 eggs \$1. E. S. Lamberson, Frankfort, N. Y.

ONTARIO Farm, Eggs \$1 sit. S. C. W. Leghorns, W. Wyand., and W. I. Games, Hens \$1 each. Prize winners. Circular. George R. Hyde, Appleton, N. Y.

TRASK'S Plymouth Farm is still selling 15 eggs for \$1, from first prize pens of Barred, White, and Buff Leghorns. E. F. Trask, Beverly, Mass.

MILLVIEW Poultry Farm, White P. Rocks, Barred P. Rocks, White Wyandottes, Silver Wyandottes, White Leghorns, Black Minorcas, pure bred, good layers. Eggs \$1 per 13; \$5 per 100. W. H. Frey, Jr., Box 55, Milltown, N. J.

COMBINATION Poultry Yards. Stock and eggs at low prices. Single Comb White, Brown, Buff and Black Leghorns; Rose Comb White and Brown Leghorns; Barred and Buff Plymouth Rocks. Best strains in the country. Write for prices. Incubator eggs from Barred Plymouth Rocks that are barred in tail and wing, as bred by standard, \$6 per 100. Satisfaction guaranteed. Clinton A. Paine, Brandon, Vt.

EGGS from my prize Buff and B. Rocks now \$1 per 13. Circular. M. F. Delano, Falmouth, Mass.

EXCHANGE.

WHITE Limestone Grit exchanged for Barred Ply. Rock, White Wyandotte or Pekin duck eggs. 200 lbs. for one sitting. G. M. Fish, Joliet, Ill.

FEATHERS.

WANTED. Dry picked hen feathers, highest prices paid. Nashua Pillow Co., Nashua, N. H.

GAMES.

BLACK RED Pit Game eggs and stock for sale. J. K. Boyce, Summitville, N. Y.

HAMBURGS.

BLACK HAMBURGS, a limited number of B. eggs at \$3 per 13, from standard high class exhibition and laying stock; won 1st exhibition pen Boston, 1890. Herbert M. Howes, Winchester, Mass.

Wants Retail Trade.

Mr. Editor:—Can you give me the address of one or more parties who would want to buy fresh eggs? By that I mean eggs that would be three to five days old when they would reach Boston, I would prefer retail trade. G. M. E. Bethel, Vt.

Do you mean that you want to supply retail dealers, or that you want to supply families direct? If the former, we could sit down to the Boston directory and copy off the names of fifty to a hundred retail grocers and provision dealers; but it is hardly the province of the editor of a poultry paper to hunt up customers.

If you mean family trade, that is, that you want to ship your eggs directly to consumers, the way to get that would be a house to house canvass.

The spring of the year is an unfortunate time to attempt to establish a fresh egg trade. Eggs are abundant then, and both dealers and consumers have no difficulty in getting all the fresh eggs they want. If you go to a dealer in October or November, and tell him you can ship one or two cases of strictly fresh eggs a week, and want to do business with him, he will embrace you as a long lost brother; and you can have all the trade you want.

Oat Hulls.

Mr. Editor:—In oats what per cent is hull, and what per cent berry? Is the hull of any value to the hen as food? H. W. M. Hazardville, Conn.

Much depends upon the quality of the oats. Fancy clipped oats that weigh 42 lbs. to the bushel, and feel heavy when you take up a handful of them, are very meaty, and the proportion of hull to meat is very small. Per contra, oats that weigh 32 to 35 lbs. to the bushel, have a large proportion of meatless hulls in them, and usually the meats that are in the hulls are shrunken and of poor quality. We know of no table which gives the per cent of hull and berry in oats. The hull has practically no food value; it is the oat meats that contain the nutriment.

Incubator Questions.

Mr. Editor:—What is your idea of my buying a small incubator with which I could make a few trial hatches, and become thoroughly familiar with the handling of a machine of this kind?

Suppose I should put a dozen eggs in an incubator today, and another dozen at the end of the week, and so on until the machine is filled. Does it require the same amount of heat at the time the chick is going to hatch as it does when the eggs are put in?

I have never had anything to do with an incubator, and as I purpose starting in the poultry business, I thought it would be well to start in with a small machine of this kind, and then as soon as I was able, start in with a larger machine. H. T. R. North Tonawanda, N. Y.

We would think it wiser to buy a fairly good sized machine, say 200-egg size, and experiment with that. The conditions would be somewhat different with a large machine from what they would with a small one, and if you experiment with a small one, you would have to do more experimenting when you got the large one. It is just as easy to run a large machine with a dozen eggs as a small one. Then when you wanted to put a hundred or two hundred eggs in, your machine is all ready, and you have "got the hang of it."

Do not put eggs into an incubator on the installment plan; it will not do. Conditions are upset at time of hatching, and eggs put in later would quite likely be spoiled by the change in the conditions. It would be possible to put eggs in a machine at different times if they were taken out and put in another machine for hatching, leaving the eggs not due to continue on at the same temperature and under same conditions; but little if anything would be gained thereby, and it would be wiser to put into the machine eggs intended to run throughout, and then run them through to exclusion.

Sundry Questions.

Mr. Editor:—1st. Why pull wings of fowls instead of cutting?

2d. How construct a brooder for chicks after three weeks old? I have a 200-chick capacity Victor brooder, but have had some trouble by smothering.

3d. How feed chicks three weeks old? Green Tree, Pa. F. A. P.

1st. Cutting is probably better and more humane. We never pluck out the wing feathers.

2d. A brooder that is right for chicks

under three weeks old is right for chicks over three weeks old. Use the same brooder till chicks are old enough to wean.

There is no such thing as a 200-chick capacity brooder. Your losses by "smothering" should have taught you that. Never put more than fifty chicks together in one brooder. If you do you will pay dearly for it.

3d. Feed the same as for first three weeks. We do. You will find full directions for feeding chicks up to laying maturity in the article, "How We Hatch and Raise Chickens," in March 15th P.-P.

Southern Chicks in Trouble.

Mr. Editor:—Some of my chicks have sore eyes and swollen faces. After a day or two the throat swells and blisters, and they generally die one or two days later. My hen house is dry, and is located on sandy soil. Can you recommend a remedy? St. Louis, Mo. B. S.

The trouble is probably due to the attacks of turkey gnats, or of the hen chigoe. Try greasing the comb, face, wattles, and throat with a little one per cent carbolated vaseline, after first bathing the parts with a solution of hydrogen dioxide and water equal parts. If the trouble is caused by chigoes, you will find a small flea-like insect in the flesh under the blisters.

To get rid of chigoes, which breed in dry sand and dust in the dark corners of the poultry house, see to it that the house gets plenty of sunlight in all parts of it. Sunshine is fatal to the larva of the hen chigoe. Sprinkle all dusting places frequently with soapy water or with whitewash; use air-slaked lime freely in the nests and about the floor, especially in dark corners. Whitewash the house frequently.

If the trouble is caused by gnats or mosquitoes, about the only help is to be had by greasing such parts as are liable to attack with carbolated vaseline, as advised, or with some stinking oil that will be offensive to the pests.

Leghorn vs. Plymouth Rock Eggs.

Mr. Editor:—Will you please answer in your correspondence column about Brown Leghorns; the quality of the eggs compared with Plymouth Rock eggs? Are they as rich, and is the yolk as good color, weight for weight, as the Rock eggs? Are they as good for cooking? R. T. N. Hingham, Mass.

Quite as much depends upon the food fed the fowls as upon the breed. Generally speaking, P. Rock eggs are larger than Leghorn eggs; but if the Leghorns are well fed, we think their eggs will be as good in quality, weight for weight, as P. Rock eggs.

Possibly the yolk of the P. Rock eggs will be a little richer in color, because P. Rocks are heavy feeders, and would be able to supply the fat element required for a rich yolk. We all know that some varieties of cows give richer milk than others, and it is reasonable to suppose that some varieties of fowls lay richer eggs than others, so far as the yolk is concerned; but the yolk is not the best part of the egg; the white (albumen) is the best.

HOUDANS.

HOUDAN eggs, \$1 per 15; W. H. Turkey eggs, \$2 per 15. G. A. Hobart, Chittenango, N. Y.

HOUDANS. Winners at Amesbury, Rochester, Beverly and Lynn. Eggs \$1 per 15. Marshall & Co., Rowley, Mass.

HOUDAN EGGS, and fowls. J. K. Boyce, Summitville, N. Y.

INCUBATORS AND BROODERS.

THE PERFECTED INCUBATOR, cash, installments, or rented. The Perfected Regulator fits any incubator; 4c. in stamps for circular. H. D. Moulton, Taunton, Mass.

INCUBATOR. One Prairie State duck special 300-eggs, good as new. Bargain. Write quick. Curtiss & Co., Ransomville, N. Y.

CHEAP, 1 325-egg Monarch incubator, 4 Peep-o'-Day brooders, 1 No. 8 Mann bone cutter. All in good order. J. H. Swift, Natick, Mass.

JAVAS.

BLACK and Mottled, Boston winners, extra large, great layers. Eggs \$2.50 per sitting; 2 sittings \$4. Circular. W. H. Congdon, Oak Lawn, R. I.

FIELD'S Black Javas won at Boston, Jan., '99, 1st cock, 1st hen, 1st cock, 1st pul., 1st pen. Circulars. Field & Son, Somers, Conn.

LANGSHANS.

BLACK Langshans. Choice breeding stock, 15 eggs, \$1.25. John Tufts, Rockport, Mass.

LEGHORNS.

ROSE COMB Brown and White Leghorns that are bred for layers. Eggs \$1 per sitting; 50 for \$3. C. H. Clark, Cobalt, Ct.

ROSE C. B. Leghorns—specialty 13 years. Eggs from prize winners, \$1.00 per 15; \$2.50 per 30. From free range flocks, \$4.50 per 100. J. L. Randolph, Bartlett, O.

S. C. WHITE Leghorns. Knapp-Wyckoff, farm raised, prolific layers of large white eggs, \$1 per sitting. G. E. Chaffant, Hammoniton, N. J.

SINGLE Comb White Leghorns, composed of the best strains in U. S. Eggs \$1.15; \$3, 100. Arthur G. Symonds, West Hopkinton, N. H.

FORTY-ONE PRIZES

FOR

DAVIS'

Blue Barred Plym. Rocks

AT TWO SHOWS.

At Amesbury, Mass., Dec. 1-3, '97, 1. K. Felch, judge, my birds won 1st (94) and 2d (93) cock's; 2d pullet (93 1-2) (same score as 1st prize); 2d hen (93); 3d cock; 1st and 2d pen; (Grand sweepstakes for best cock, 2 cockers, 2 hens and 5 pullets), the Silver Cup Trophy for best display, and 9 specials, in close competition, with 143 birds in the class.

At Haverhill, Mass., Dec. 27-30, '98, my birds won 1st, 3d, and 4th cockers; 1st, 2d, and 3d pullets; 1st, 2d, and 3d hens; 2d and 3d cocks; 1st and 2d pens; the GRAND SWEEPSTAKES for the best cock, 2 cock's; 2 hens and 5 pullets. The SILVER CUP for best display, and EIGHT SPECIALS.

I won three times as many prizes as all my competitors combined. My strain of P. Rocks are noted for their light blue barring, rich yellow legs and beaks, low combs, fine symmetry, and are excellent layers. Send for my 16 page catalogue giving a full description of my matings for 1899 and my show record.

EGGS

eggs and a good hatch. W. B. DAVIS, Care Merrimack Nat. Bank, Haverhill, Mass.

S. C. BROWN Leghorns a specialty. 15 fertile eggs, \$1.25. L. P. Bierly, Pittston, Pa.

DUCKWING Leghorn eggs. J. K. Boyce, Summitville, N. Y.

MINORCAS.

LARGE white eggs from selected stock of Black Minorcas, Northrup strain, \$2 per 15; \$3.50 per 25. F. A. Starnard, Truxton, N. Y.

ROSE Comb Black Minorcas. Northrup str., won 1st on hen, '99, New York show, in competition with Mr. Northrup. Eggs, \$1.50 a sitting rest of season. H. W. Bohn, 34 N. 9th St., Reading, Pa.

EGGS guaranteed to hatch, regardless of distance, from Rose and Single Comb Black Minorcas that have a worldwide reputation as "best for show and utility." A few good breeders cheap. Large catalogue. Box 76, Geo. H. Northrup, Raceville, Wash. Co., N. Y.

MINORCAS exclusively. Eggs \$1.50 per 15; \$5 per 100. Breeders after May 15th. Great layers. Rowland Story, Sec'y American Black Minorca Club, 187 Arlington Ave., Brooklyn, N. Y.

ROSE and Single Comb Black Minorcas. Eggs from Single Combs \$1 per 15; Rose Combs, \$1.50 per 15. 5 fine Rose Comb cockers, \$1.50 each. Geo. A. Harbert, Cuyler, N. Y.

BLACK Min. and Lt. Br. eggs, \$2 per 15; \$3 per 30; fancy and utility combined. J. Meeker, 2301 Cedar St., Canton, O.

BLACK Min., S. and R. Comb (Northrup's) White Wyan., leading strains. Eggs R. C. \$2-15; S. C. and Wyand., \$1-15. M. V. Allen & Son, Ovid, N. Y.

S. C. Black Minorcas, Northrup strain, large white eggs. Bred for laying. \$1 per 15. Geo. A. Marks, 227 Proctor Ave., Revere, Mass.

ORPINGTONS.

IMPORTED Buff Orpingtons, Mad. Sq., 1 pen, 3 and 4 pul.; Boston, 1 cock, 1 pul.; Mt. Gretna, 1 cock, 1 hen, 1 cock, 1 pul. Eggs \$3 per 15. C. E. Vass, Washington, N. J.

BUFF ORPS. Miss Edwards, exporter of winners of firsts and seconds, New York show. Eggs, \$3 doz. Conley Poultry Farm, Dursley, Glos., England.

PHEASANTS.

MONGOLIAN and English pheasant eggs. Birds are beautiful and easily raised. J. H. Graves, Jr., Chilesburg, Ky.

PIGEONS.

PIGEONS of all var., and hares; 2c. for catalogue. C. C. Stammer, Vernfield, Pa.

PLYMOUTH ROCKS.

BUFF P. Rocks—1 won at Haverhill, Lambert, judge, 7 regular and special prizes, including 1 collection for best cock; 2 cock's; 2 hens; and 5 pullets; also grand special for 10 highest scoring birds in Buff Rock class. Eggs \$2 per 15; \$5 per 40. Geo. C. Perkins, Box 613, Haverhill, Mass.

25 GOOD W. P. Rock pullets and 25 hens for sale. Eggs for hatching from good vigorous stock, \$1 per sitting. Gerry B. Lawrence, Canal Poultry Yards, Ashby, Mass.

BARRED P. R. Thompson str. Eggs \$1 per 15. Miss Virginia G. Van Atta, Waverly, N. Y.

B. P. ROCKS won at Milford, N. H. Eggs \$1.50 per 15. Buff Rocks and White Wyandottes. Fine stock. Eggs \$2 per 15; \$5 per 40. W. P. Weston, Hancock, N. H.

FIELD'S Buff Rocks, 12 premiums at Boston, Jan., '99; 1st cock, 4th cock, 1st N. Y. Feb., '99. Circulars. Field & Son, Somers, Conn.

BURGESS' POULTRY FARM, breeders of Bar P. Rocks. Eggs and chickens a specialty. Nantucket, Mass.

NOURSE'S W. P. Rocks won three regular prizes and one special at Boston, '99. Brown eggs from two pens containing these winners, \$1.50 per sitting; circular free. H. A. Nourse, Box 306, Barre, Mass.

BARRED P. Rocks. Hunter-Colby. Nicely barred, farm raised, heavy laying stock. Eggs \$1 per sitting. G. E. Chaffant, Hammoniton, N. J.

50 WHITE P. ROCK hens and pullets for sale, that are white and stay white; nice small combs. For price, etc., write. C. H. Allen, Box 112, Apponaug, R. I.

MAMMOTH White P. Rocks, Hawkins and Taylor strain, 8 and 9 lb. pullets, mated to 11 and 12 lb. cocks; 15 coffee colored eggs, \$1.50. H. A. W. Fay, Westboro, Mass.

I AM still breeding pure W. P. Rock fowls. My fowls have free range and are healthy. \$1 for 15. Mrs. Lillian Brand, Burke, Franklin Co., N. Y.

BARRED Plymouth Rock, Pekin duck eggs, Rankin Prolific. Nettle G. Smith, Smithtown, N. H.

POULTRY FARMS.

FOR SALE, cheap, poultry farm in Franklinville, N. Y. Everything new and up to date. Small payment down. Inquire of Asher Cutler, Holland, N. Y.

POULTRY PRINTING.

\$1 postpaid 100 note heads, 100 envelopes, 100 cards; booklet free. The Poultry Press, Albion, N. Y.

\$10 pays for 10,000 6 x 9 2 page circulars, 40 lb. white book paper. Booklet free. The Poultry Press, Albion, N. Y.

RED CAPS.

JAMES I. PARK, Orono, Maine, Red Caps exclusively. Eggs \$1.50 for 13. Cock's. Prices right.

RHODE ISLAND REDS.

OURS WON FIRST on cock, hen, cockerel and pullet, and all second premiums but one on same at last Boston show. We have ten breeding yards, and are shipping R. I. eggs, best, \$2 per sitting; two for \$3; three for \$5. Second best, \$2 per sitting; two for \$3; three for \$5. Second grade Rose Comb Red eggs on short notice, \$1 per 100. Hens and pullets for sale in June, and young stock in September. Illustrated circular and price list free. Farm at West Mansfield, Mass. Samuel Cushman, Pawtucket, R. I.

R. I. REDS exclusively. Eggs \$1.50 for 15. E. A. Hall, 60 High St., North Attleboro, Mass.

R. I. REDS, B. P. Rocks, Hunter males. Light Brahmas, handsome vigorous utility strains. 15 eggs \$1; 40, \$2. L. D. Cole, Antrim, N. H.

CREAM of R. I. Reds, winners at Boston, Brockton, Fall River, and R. I. state fair, vigorous, productive, standard stock. Eggs from prize birds, \$1.50 sitting; 1 sit. \$5. Belmont Farm, Fall River, Mass., J. Crowther, prop., sec. R. I. Red club.

FOURTH YEAR a breeder of Rhode Island Reds. I have three hundred of these beautiful birds all raised on my farm. My stock is unexcelled in vigor, size and color. Utility and beauty is my aim in breeding. Eggs \$1 per 13; \$2 per 30. A. B. Cummings, Hudson, New Hampshire.

MY REDS first place at Milford, N. H. Eggs \$1.50 per 15. W. P. Weston, Hancock, N. H.

R. I. REDS, farm bred, vigorous, great layers. First and special premiums Barnstable, '98. Eggs \$1 for 15; \$3 for 30. Fine Imperial Pekin duck eggs, 5c. each. Geo. H. Adams, Chatham, Mass.

MY R. I. Reds and Buff Leghorns are prolific winter layers. Have a few more sittings to spare at \$1. Wm. Thompson, Beverly, Mass.

SPANISH.

BLACK SPANISH. J. K. Boyce, Summitville, N. Y.

TURKEYS.

EGGS from large healthy White Holland turkeys of the finest strains, 2c. each. Good hatch guaranteed. Thos. Hamilton, Wigton, Pa.

WANTED.

WANTED. Two young men to do general work on poultry farm. Fishers Island Farm, Fishers Island, N. Y., via New London, Conn.

WANTED an experienced duck picker. Apply to Oxford Poultry Farm, Oxford, Pa.

CORRESPONDENCE wanted with an exper. poultryman, having say \$2000 capital, who would like to put it against an ideal farm near a city of 50,000, and raise poultry on a large scale. Address Lock Box 718, Erie, Pa.

SITUATION on poultry farm by young man. Richard Myers, 95 12th St., Wheeling, W. Va.

WYANDOTTES.

WHITE Wyandottes exclusively. Choice pens mated to 9 and 10 lb. males. Extra good layers, brown egg strains, bred for utility as well as beauty. Eggs \$1 per 15; incubator eggs 100, \$4. Satisfaction guaranteed; circular free. B. Billings, Oberlin, O.

WHITE Wyandottes, great winter layers of brown eggs; large, vigorous, early laying stock. Eggs \$1.13; incubator eggs, \$5, 100. Stock in season. A. M. Jeramit, No. Attleboro, Mass.

AT BOSTON, '99, in the hottest competition ever known on W. H. Wyandottes, 1 won 10 premiums. My birds are large, white, and true Wyandotte shape. Eggs, \$2 per 15. F. H. Fuller, Box A 605, Hinsdale, N. H.

1776 FARM, Warner, N. H. Prolific br. egg farm raised W. Wy., Bar. P. Rocks, C. I. Games, Lt. Brahs. Stock \$1 to \$3. Satisfaction. Eggs 13, \$1.25; 30, \$2; 48, \$3; 96, \$5.

BLACK Wyandotte eggs \$2.50 per sitting; choice stock, prolific layers. Boston winners. Circular. W. H. Coudon, Oak Lawn, R. I.

BUFF Wyan. exclu. Eggs \$2 for 15; 40, \$4.50. Circular. G. W. Felton, Barre, Mass.

NOBSCOT MT. STRAIN. Pure White Wyan. Eggs for hatching, \$2 per 15; 2 sittings, \$3.50; 3 for \$5. Incu. eggs, price on application. Nobscot Mt. Poultry Farm. F. W. Jones, So. Sudbury, Mass.

WHITE Wyan. exclu. Prolific layers, farm raised. Eggs \$2 per 15; \$5 per 30. Incu. eggs \$5 per 100. C. E. White, Fox Chase, Philadelphia, Pa.

SILVER Wyan. eggs \$1.50 per 15. Stock for sale. Geo. A. Whitney, Athol Center, Mass.

BUFF WYANDOTTE eggs, \$1 for 13. T. F. Jennings, 14 Everett St., Lynn, Mass.

FIELD'S Buff Wyand., 12 premiums at Boston, Jan., '99, Hartford, Jan., '98, 1st, 2d, 3d, 4th, cock; 1st, 2d, 3d pullet. Circ. Field & Son, Somers, Conn.

213-EGG White Wyandottes, Duston str., prize winners, 7 to 7 1/2 lb. pullets mated with 9 to 10 lb. vigorous farm raised cockers. Small combs, snow white plumage, orange yellow legs and beaks. 15 brick colored eggs, \$1.50; \$6 per 100; cockers, \$3 each. H. J. W. Fay, Westboro, Mass.

WHITE WYANDOTTES exclusively. Eggs from choice pens \$1 per sitting; \$5 per 100. James Hawkins, Wellesley, Mass.

WHITE AND GOLDEN Wyan. Eggs \$1 per 13. L. G. Butman, Rockport, Mass.

BUFF Wyandottes, prize winners, prolific layers. Eggs, \$1.50 sitting. E. C. Penn, Ware, Mass.

WH. Wyan. eggs, Hawkins, Duston str., \$1.50 for 15. W. B. Ganiard, Delta, Ohio.

SILVER Wyandotte eggs from winners \$2 for 15. May 21st one-half price. R. G. Williams, Box 46, Barre, Mass.

HARWOOD'S Buff Wyand., Look at their record. Have furnished six leading fanciers with eggs this spring, and the R. I. College of Agr. and Mech. Arts with a grand pen. Also Boyd's Blue Wyand. and Blue Andal. Dr. Harwood, Chatham Falls, N. Y.

WHITE WYAN. exclu. Vanhans's dark brown egg strain. Eggs 15 for \$2; 45 for \$5. Circular. Stock for sale. F. W. Howes, Woodstock, Vt.

WHITE Wyan. exclu. Healthy vigorous farm raised; prize winners wherever exhibited. Eggs per 100, 4 sit. \$1. R. L. Cadwell, Brocton, N. Y.

WHITE Wyand., br. egg str.; great layers; farm raised. \$1 a sit. G. P. Holmes, So. Walpole, Mass.

\$1 FOR 13; \$3 for 45 large brown eggs from prize winning W. Wyandottes. Good layers. See May 1st ad. Fine breeding stock for \$1 to \$1.50. Edith Rowley, Stockton, N. Y.

W. WYAN. eggs from best pens, br. egg, prolific lay. st'k half price rest of season \$1 per 13; \$5 per 100. F. O. Price, Bridgewater, Mass.

WHITE Wyandotte eggs from stock won first prize Boston, New York—Duston, Andrews, Knapp strains. Great layers brown eggs. After May 15th prices reduced to \$1 per sitting. My birds are pure white. Pullets average weight 7 lbs; cockerels, 9 lbs. J. S. Gates, Westboro, Mass.

Trouble With Brooder Chickens.

Mr. Editor:—My brooder house is heated by hot water pipes. The chicks are under the pipes, on a wooden floor a foot or more from the ground, and the wooden hovers are above the pipes. Floor of house is cement; the chicks have no outdoor run. The litter is oat straw cut fine.

I feed as follows: First day or two corn meal and oatmeal, sometimes dry and sometimes moistened; after that they have cracked wheat, oatmeal, coarse corn meal, and millet seed; mash every other morning, with a little blood meal, or some meat and bone. For green food they have onions, and turnip tops every other day. They have grit and fresh water always before them. They begin to die at the age of six days, and when two weeks old only about 50 per cent remained alive.

Part die of bowel trouble, but the greatest number from a disease I do not know. They have no sign of bowel trouble, but act crazy like, and die with their eyes open. O. C. A.

Elyria, O.

To begin with, the chicks are not fed as they should be, and it will pay this correspondent to read carefully the article on "How We Hatch and Raise Chickens," in March 15th FARM-POULTRY. Part of the trouble is due to indigestion, and we think that feeding the dry corn meal has not done the chicks any good. They did not have a fair start.

Chickens need plenty of fresh air, but these seem to have been stinted in this respect. The system of brooding employed by this correspondent is one that has not given good satisfaction, as there is lack of fresh air under the hover. Even with the method of feeding employed by Mr. A., the chickens would have done better had they been brooded in some good individual hot air brooder which furnishes a constant supply of fresh pure warm air under the hover.

Chickens need to get on the ground, yet these chicks never had a chance to do so; had they had an outside run, it would have helped them to do better.

In feeding meat food, care should be taken until it is certain that it does not disagree with the chicks. The careless use of commercial meat foods will often result in bowel troubles, and other digestive diseases.

This correspondent will find that prevention is the surest way to keep clear of disease, and he must begin at the beginning and change his methods of feeding, brooding, and care, if he hopes to be successful.

Another Fake.

Mr. Editor:—To allay the excitement under which some of our amateur poultry raisers are laboring, will you kindly undertake the settlement of the following dispute:

It has been declared by some experienced breeders that they always examine their eggs before setting them, and they aver that if an egg does not contain an air cell, visible to the eye, it will not hatch. Is this a fact? Must every egg necessarily contain such a cell? F. H. R.

Detroit, Mich.

That is simply another of the freaks of the imagination. Every egg contains an air cell, although sometimes, in fresh laid eggs, the cell is so small as to be hardly visible. As the egg grows older the cell increases in size, owing to the contents of the egg evaporating through the pores of the shell.

There are lots of these "fakes" circulating among ignorant people, but observing men discarded them long ago.

As to Hot Water Brooders.

Mr. Editor:—We are contemplating building a brooder house, and would be glad of some information on the hot water pipe system, and on the brooder heated by coal oil stove. My experience is that the hot water system is not a success in raising broilers in winter. Am I right? You can easily understand that it is cold here, and we have a long winter—snow on the ground about four months. We wish to raise broilers during the early winter. W. B. G.

Guelph, Ont.

Our opinion of hot water pipe brooders is expressed in our report of a visit to the Rhode Island Experiment Station, July 15th, '98, F.-P., and we have frequently stated in these columns that there is a serious drawback to that style of brooder, in that there is no provision for fresh air. The air within the hovers is kept warmed by the hot water pipes, but the chicks have to breathe it over and over and over again, which, of course, is unfortunate. A good many poultrymen whom we know are changing a part or all of their brooder houses, from the hot water pipe system to the individual brooders. For example, Mr. Orangle, at Fishers Island Farm, has changed half of his long brooder house, and substituted individual brooders,

raising the chicks in those brooders to about three weeks old, then moving them on to the other half of the brooder house, which has the hot water pipe system.

Mr. Nesmith, of Reading, Mass., has done the same with half of his long brooder house, but substituted individual brooders for the hot water pipe system. Mr. Hill and Mr. Hosmer, both of Woburn, Mass., have done the same—and others we could name.

There is but little doubt that individual brooders, heated by coal oil lamp, are much superior to the hot water pipe system for baby chicks; if so constructed that an current of warmed fresh air is constantly flowing in under the hover, practically the same as in heating a dwelling house by indirect radiation—that is, air being warmed by passing over heated pipes before passing into the living rooms.

If you will turn to report of the agricultural experiment station visit, July 15, '98, F.-P., you will see that Prof. Brigham is experimenting with a system of warming the air before passing it into the hovers; but that would probably be expensive in construction.

In your cold climate it would be essential to have a hot water heating system, and out-flow and return pipes along the front of the house, perhaps just below the windows, to warm the whole house in your cold winter weather; then, with provision for ventilation and introducing fresh air, you ought to raise chicks successfully in winter.

Letting the Chickens Out in the Morning.

Mr. Editor:—There seems to be a diversity of opinion as to whether small chicks should be let out of their coops early in the morning, when the dew is on the grass. In one place in F.-P. it would appear that you let yours out the very first thing, without regard to the weather; but you do not say so in so many words. An answer to this question would be very much appreciated. A. C. W.

Holmesburg, Pa.

We let our chicks out just as soon as the sun is up in the morning. We begin feeding about five o'clock, and everything is fed and watered and released from the coops as quickly as possible.

In this we should follow nature's way, and it is the natural disposition of hens and chicks to be out early in search of the "early worm," as soon as it is daylight. The dew does not hurt them to any appreciable extent, if at all.

Vertigo.

Mr. Editor:—I have a pullet whose comb turned black. I gave her some liver pills, but it did not seem to do any good. She will throw her head back with the bill straight up in the air, and when she tries to walk she acts dizzy. She has been this way for some time, and as she is one of my best birds, I would like to cure her. F. P.

Hornellsville, N. Y.

The trouble is vertigo, and is common in overfat birds, and those having indigestion. For treatment give a half-teaspoonful of castor oil, and feed grain sparingly, allowing an abundance of green food. If possible, let the fowl run on grass land, and feed only a little whole wheat morning and night.

Terrapin for Meat Food.

Mr. Editor:—1st. Are turtles or terrapins good for chicken feed, cooked and fed as a meat food? Can get scores of them here, and would like to have your opinion.

2d. What ails my chicks? They have something like leg weakness, but I do not think it is that. They appear lively in the brooder, but some of them faint as soon as the air strikes them, or when I touch them. Some faint and die, others are weakly. W. A. W.

Lewisville, Ark.

1st. We never used turtle or terrapin for chicken food, but if we lived in a section where they were plenty and cheap, we would try feeding the meat cooked, and note the results. As the meat is quite "rich," it would have to be fed sparingly.

2d. The chicks do not get enough fresh air. Let them have an outside run, and furnish an inducement for them to exercise freely in the open air. Unless chicks can be allowed to run on the earth they will not be good for much.

Hatching Eggs, and Low Temperature.

Mr. Editor:—In April 15th number of F.-P., I noticed an inquiry from a reader asking in how low a temperature eggs may be kept and still be hatchable. I had an experience a short time ago that may be of interest to you. On March 30th I procured a sitting hen and put her on a sitting of eggs. April 1st she laid a soft shelled egg and then left the nest, having been on the eggs only one night. I washed the eggs in lukewarm water, dried them carefully, and put them on a shelf about two feet from the ground. Laid them on cotton batting, and covered them loosely with same material; the cotton batting was not enough to exclude the air, and some of the eggs around the sides of the box were not covered at all. By oversight I left the door of the chicken house open until about 10 P. M., when I found that water which was standing then about five inches from the floor had frozen fully a quarter of an inch thick; naturally I expected the eggs to be useless for hatching. Five days later I had another broody hen, and put her on the same eggs. On testing them after she had sat six days, found that eleven out of fifteen eggs were starting. Inexperience and a desire to experiment led me to break open three of the fertile eggs, besides the four infertile ones, so there were eight left in the nest, which in due time brought forth eight chicks—and only for the hen accidentally killing two of them immediately after hatching, there would be eight lively chicks running around now; as it is there are but six.

As the eggs were the first ones laid by two S. S. Hamburg pullets that had come all the way from Waltham, Mass., two weeks before, I think it was hardly the chilling that caused the four infertile eggs; they were probably the first ones laid.

Regarding the turning of eggs, I would like to say that I have hatched fine healthy chicks (bantams) from eggs five weeks old, that lay on one side from the time they were laid until put under the hen, never having been turned at all.

Hoping that this will find space in the "best" poultry paper, and may be of some service to others,—yours, etc., G. J. R.

Park Ridge, N. J.

Why Doesn't He Get Fertile Eggs?

Mr. Editor:—It has been a great disappointment to me this season to learn that only a limited number of my eggs are hatching. Tonight I made the first test of eggs set since the very cold weather in March. Eggs set then hatched only about three-fifths of the number set. I did not think anything of that on account of the weather; but now it is different. I give below the result of the tests:

(1) Buff Wyandottes, 13 eggs from one hen, all fertile.

(1) Buff Wyandottes, 10 eggs, same pen as above hen; three fertile.

(2) Brabmas, 13 eggs from pen of seven hens; only four fertile, and these from one hen.

(3) Buff Wyandottes, 15 eggs from pen of four hens, five fertile.

Eggs above mentioned are from different pens, as indicated by numbers in parentheses. All the fowls are strong and healthy, the cockerels are all very strong and vigorous. Quarters are roomy and dry, and the birds



RELIABLE INCUBATOR & BROODER CO., Box B 112, Quincy, Ill.

get good care. My rule for feeding is to give a small handful for each fowl, and two or three for the pen. They have a warm mash at night of cut beets and mixed meal. Every other day they have cut bone at noon. Feed clover often. They are always supplied with grit and shell. They have a fair sized outdoor run to each pen. The hens are laying extra well, but I have had to decline orders for eggs on account of the low fertility, and I have tried to make good all poor hatches from eggs which had been sent out. Why don't the eggs come fertile? Can you suggest a remedy? BREEDER.

New York.

[We don't know why this breeder did not get fertile eggs. Perhaps some one can help him out in time for another season. It is easy enough to say "the weather was to blame;" but was it, and if so how much? We have had letters like the above from all over the country this spring. We would like to know why the eggs failed to come fertile for breeders who have been successful during past seasons, and with the same method of handling their stock. One breeder suggests that more vegetables and meat fed will help, and only one grain feed a day. Where are the old methods wrong, and if wrong, why did they give good results in the past?—Ed.]

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Intestines Covered With Mites.

Mr. Editor:—We killed a cockerel, and his intestines were literally covered with mites the color of the fat. They resembled in size and shape the little gray mites. What is the cause and the remedy?
Salesville, Mont. P. H. T.

We have heard of a few cases where mites were very thick on the fowl, and when it was killed and the carcass opened the mites found their way into the abdominal cavity before the intestines could be drawn. Possibly such was the case with your cockerel.

There is a mite known as the *Cystodites nudus*, which inhabits the respiratory organs



of fowls and pheasants. The mites are white, and globular in form, having legs with five joints. The mouth parts form a sort of tube, and are evidently formed for suction. They are large enough to be readily seen with the naked eye, and are found infesting the air passages and lung tissue. Cases have been cited where these mites were found in the abdominal cavity in considerable numbers.

Theobald mentions a case which came under his notice of this mite affecting the liver. The fowl died, and in the liver were found numerous round yellow nodules which contained numbers of the *Cystodites*. They have also been noticed in the other viscera, but in all cases mentioned where the mites were found in places other than the air passages they were confined in yellowish nodules. In the air passages they are found free, and sometimes multiply so rapidly that the fowl is killed by their obstructing the air passages, or dies from exhaustion.

They may be present without causing any apparent disturbance. Affected birds are usually inactive, droopy, have a pale comb, and loose flesh—having as a rule an obstinate catarrhal discharge from mouth and nostrils, which does not yield readily to treatment, and when apparently cured appears again without any apparent cause. The mites, when the cause of the trouble, are always to be found in the mucus expectorated by the birds.

Feeding sulphur, and fumigating with tobacco smoke is recommended as a remedy. The best cure is when the mites are found to kill the bird, and cremate every scrap of the carcass.

Color of Egg Yolk.

Mr. Editor:—Will you kindly tell me why the yolks of my eggs are so light in color? In the morning I feed them a warm mash, consisting of soaked bread well drained, bran, meat meal, and Sheridan's Powder; at noon, scraps from the table; and at night, wheat, corn, and oats mixed. Have plenty of grit and oyster shells before them, also charcoal and ground bone. Drinking water fresh always. House is dry and warm. Everything satisfactory as to egg yield. Can it be possible that green food would alter the color?

Philadelphia, Pa. A. M. B.

Yes, it is the want of green food. Egg yolks are pale in late winter and spring, until the fowls get green grass, for just the same reason that winter butter is pale in color. The coloring matter in green grass will make butter and egg yolks both the right color.

Liberal feeding of cut clover, and an increased amount of good yellow corn will improve both the color and consistency of the egg yolks.

Cherry Hill Poultry Farm.

About two miles south-east of Flat Rock, Ind., is situated a farm of twenty-two acres, on which is grown an abundance of fruit, such as grapes, pears, cherries and apples. Fruit, however, is not the main feature, as the man who occupies the farm was "raised in a poultry yard," as he expresses it, and is one of the few breeders who breeds fowls strictly for eggs and meat. His name is Miles

Grecian, and he breeds White Wyandottes and White Plymouth Rocks. The farm derives its name from a small mound-like hill which is covered with cherry trees, and where the brood coops are located. Mr. Grecian does not breed a great quantity of poultry, but spends most of his time with his fowls, and says he believes there is more money in keeping two hundred fowls right than there is in keeping five hundred just "any old way;" so he has the highest quality of practical fowls of the variety which he breeds. The young stock are given unlimited range over the orchards and meadow, which with the careful feeding and housing they receive from their owner, insures health and vigor in the fullest extent of the term. As stated before, Mr. Grecian is not an extensive breeder, but his business has maintained a healthy growth, and he has added several new coops this year, made after the plan described by him in the Feb. 15, 1898, issue of F. P. He reports great success this year in hatching chicks, and that those hatched are the strongest and quickest growers he ever raised. Those hatched in April are now at the homeliest stage of chickhood, and they will come in from their hunt with their crops full of bugs and worms, yet be eager for a little Johnny cake, which they always get, while those hatched in March are getting well feathered, and their owner looks with pride at the white forms roving around through the grass on Cherry Hill, and counts on choice birds for himself and customers. Those who want courteous treatment and first class stock in the W. Wyandotte or W. P. Rock line will do well to write to Cherry Hill Poultry Farm.

One of the finest and neatest booklets that has come to our notice this season is the one from Fred Borman, of Danbury, Conn., the noted breeder of Golden Wyandottes. Mr. Borman has won many prizes this year, including Boston and New York shows, and has as fine Golden Wyandottes as there are in the country.

He guarantees entire satisfaction, and our readers interested in this variety should be sure to send for booklet, and mention FARM-POULTRY in writing.

We are in receipt of a note from Howland & Whitney, Cambridgeport, Mass., informing us that they have got to move their rabbitry, which necessitates their disposing of a large number of their Hares, including all the Boston show winners, at low prices, and special prices made on lots. Also a few good White Wyandotte and White Plymouth Rock cockerels and pullets cheap, considering quality.

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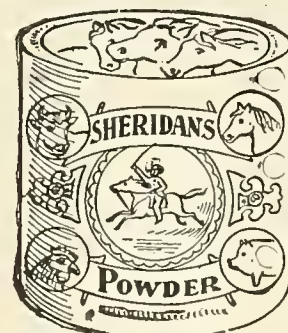
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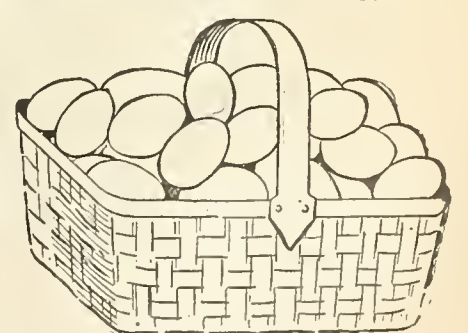
in keeping poultry for profit, who study cause and effect carefully. Many successful Poultry-raisers have learned by experience that the cause of a very bountiful supply of eggs in the fall and winter, when prices rule high is, proper care, feeding and management, which they have learned by experience includes the use in the mash food, once daily,

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Poultry in Southern California.

Mr. Editor:—I have just received my April 15th F.-P., and can hardly let your readers have so poor an opinion of southern California as is given by the gentleman from Maine. I wish he could have visited some of our poultry yards around the city. We have lots of fine thoroughbred poultry here, that I am quite sure is not excelled in the east. I will just mention a few: Buff Cochins, Black Cochins, White Plymouth Rocks, Barred Plymouth Rocks, Buff Plymouth Rocks, White Wyandottes, Buff Wyandottes, Leghorns, Langshans; in fact, everything you have there—with the possible exception of R. I. Reds—I have not heard of any of them so far.

As to fowls deteriorating that come from the east, I have seen a good many from there that have been in this country two years, and are still looking well; and to prove to you that I do not believe it, I intend to send to several of your advertisers I have been in correspondence with, for several pens for our new quarters, just as soon as we get moved.

He is right about the dry years killing grass, but he is wrong about there being so little alfalfa grown in southern California; and a small patch of alfalfa will feed a big flock of chickens, as you can cut it every six weeks for hay, and it keeps well. The truck gardening is a good thing. I can get from my Chinaman vander a large burlap sack full of lettuce for twenty-five cents that will feed my flock for nearly a week, and I have one hundred and seventy-eight at present.

Poultry conditions are not so bad as painted by the gentleman, if you go about it right; but I don't advise anyone to come here and start in the business until he understands the climate. It is not the rainy season that causes roup, but the fogs in the fall and spring, which come in from the coast very heavy, and a great many let their chickens out early on those days, with roup as the result.

Lice? Yes, they are bad, and you must keep on the warpath Lee's lice killer and some kind of insect powder the biggest part of the year; but you can keep them in control that way—at least I can. I have Barred and White Plymouth Rocks, and expect to add White Wyandottes and possibly Black Minorcas. We will turn an eight acre orchard into a poultry farm, so you see we don't feel so gloomy about the business. I have lived here eleven years; I am not on a visit.

D. E. P.

Los Angeles, Cal.

[The gentleman from Maine had not been in California on a visit, but had lived there some years.—ED.]

Needs a Good Brooder.

Mr. Editor:—What is the matter with my chicks? March 1st I hatched one hundred chicks in an incubator, and about March 20th another hundred. These seemed to do very well as long as I kept them separate, and for some time after I let them run together. Having no brooder I placed them in a box 10 x 3 ft., in a room where the temperature is about 70° Fahr., allowing them to run outdoors and pick grass whenever the weather is warm.

I have as I think been very careful not to overfeed. Their food consists of rolled oats, with an occasional change of hard boiled eggs chopped fine, and now and then a finely chopped onion mixed with the oats. Have always kept plenty of fresh clean water before them, also provided a dish of finely broken oyster shells, and one of charcoal.

Have always kept plenty of hay chaff in the box, throwing their feed in it so as to induce them to scratch. Nights I divide them up into small groups of thirty, placing them in boxes 3 x 1½ ft., in which I set a jug of hot water, covering the box over with a piece of cotton cloth. During the night the temperature of the room runs down to about 45°, and in the morning I usually find from five to seven dead.

Their bowels are very loose, the droppings being of a watery nature, sometimes nearly white, and sometimes yellowish brown. Have tried various remedies, but of no avail; have given them tincture of nux vomica, hyposulphate of soda in drinking water; have also given castor oil, camphor, and various other things, all of which seem to do no good. They

begin to dump around, seeming to go lower all the time, until they die. I notice if one becomes knocked over it does not seem to try to regain its feet, but lies there letting the well ones tramp over him at will. After dumping around for about half an hour they seem to have a kind of spasm, and die. After feeding them I notice some of their crops feel soft, as though full of water, but upon opening a dead one's crop I could see nothing wrong.

Perhaps you may think they have lice, but have made a thorough examination, and not one could be found. I hope you will size this up and tell me the cause and remedy.

Milo, Mich.

E. C. T.

[The chicks are not brooded properly, and do not get a sufficient amount of fresh air at night. They are too hot when the hot water jug is put in, and as it and the room cool off they are too cold. The combination of impure air, overheating, and chilling, results in fatal "colds." The best remedy will be to brood the chicks properly. It will be much cheaper to invest in some good brooders than to doctor the chicks, and the results will be more satisfactory.—ED.]

The best of all Pills are BEECHAM'S.

Had an Injured Leg.

Mr. Editor:—Will you please tell me through FARM-POULTRY, what ails my hen, also the cause and cure? She is a two year old Barred Plymouth Rock, and is as healthy looking as can be. She attracted my attention at first by limping, and being the last one out to the feed trough in the morning. Upon examination I found her leg from the hock joint upward encased in a mass of dried skin, scabs, or something of that sort. The skin on the leg and on the body around and under the thigh is new, and as white and clear as possible, but is almost bare, as nearly all the feathers have pulled off and stuck to this outer skin, or whatever it is.

I enclose a small piece for you to examine; it was taken off after greasing her with lard. I have taken her from the pen and put her in the "hospital," where she seems to be doing well.

HERMITAGE.

La Camas, Wash.

The hen is probably recovering from a bad sprain or broken leg. It is quite common for the skin to "peel" after the prolonged swelling, which attends such injuries, has subsided. It calls for no treatment other than an occasional greasing of the skin. New feathers may not grow on the leg until the bird moults.

Doane's Black Minorcas.

Mr. J. H. Doane, Gouverneur, N. Y., the veteran breeder of Black Minorcas, reports that his customers are having excellent hatches from his eggs, and they are testing very fertile. Out of a test just made he reports 72 good fertile ones from 81 eggs, which is very good indeed.

Mr. Doane has won his share of prizes at Madison Square Garden, New York, of late years, and his birds are good winter layers.

Our readers interested in this breed should look up his ad. on first inside cover, for price of eggs.

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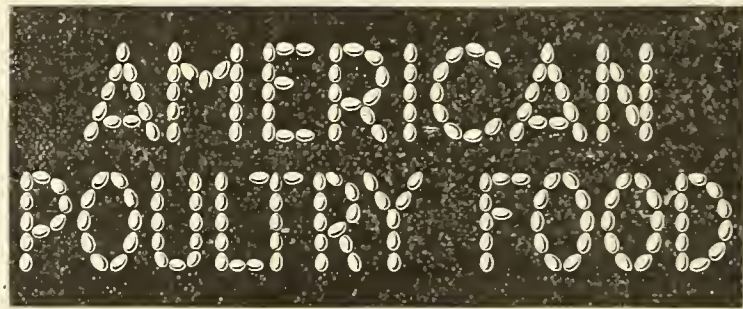
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HOW TO MAKE CAKE FOR CHICKS.

Thoroughly mix three pints of American Poultry Food, one pint of clover meal, a third of a teaspoonful of salt, and five teaspoonfuls of baking powder; wet with water or milk to a moderately stiff batter and thoroughly bake in a slow oven; the inside of the cake will serve as a mash, and the outside can be used in place of hard grain.

Practical Poultry Feeding, a little book covering a wide range of subjects of vital interest to Poultrymen, will be sent you free, post paid, on request.

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—the kind that will produce strong, vigorous chicks, depend upon the vitality of the hen that lays them. She must not be fed on heating, debilitating food. Really the best thing for the breeding hen is our

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The Bennett & Millett Co., Box F.P., Gouverneur, N. Y.

A Good Start.

Mr. Editor:—I got three sittings of White Wyandotte eggs last year, and now I have twelve nice pullets and five cockerels. I have the best cockerel with the pullets, and am setting the eggs. The pullets commenced laying last December, and have not stopped laying yet, so I am well pleased with them.

I sent two cockerels and five pullets to a poultry show five miles from here, and got 2d premium on one cockerel, (the other was disqualified for some little stubs of feathers between his toes, which I did not see), and 1st, 2d and 3d premium on pullets. They were scored by judge Tucker. They have laid better, so far, than my Brown Leghorns, and that is what I wanted them for, and I have become interested in thoroughbred poultry from reading your valuable paper, FARM-POULTRY.

Miss M. M.

Inkster, Mich.

[That is first rate, but why do you expect the White Wyandottes to "stop laying?" They are not built that way. They "lay early and often," and only slack up during the moult.—ED.]

Tennessee Notes.

Mr. Editor:—I have purchased eleven acres of land, a clay loam, gently rolling and dry, which naturally produces about forty bushels of corn per acre.

Just now my purpose is to set aside a rectangular plat of two acres, on a gentle slope facing south, for my thoroughbreds. Through the length of this I wish to sow a bed of lettuce some ten feet wide, and upon this lettuce bed locate my brooders, say six in all, 42 x 42 inches inside measurement. The remainder of the two acres will probably be in potatoes, which will be cultivated regularly about once in ten days, giving the chicks plenty of fresh scratching ground, which I fancy is an advantage. On two sides this two acre lot will be surrounded by growing corn; on the other two by wheat fields, giving them abundant range and a good deal of insect life during the summer and fall.

No chickens have ever been raised on this eleven acres, nor near them; and it is my intention that none but my thoroughbreds ever shall be,—except, perhaps, some incubator hatched mongrels during the coming summer.

By keeping the fowls rigidly isolated, and free from contact with sources of contagion, I hope to be entirely free from lice, gapes, and cholera, the three great enemies of poultry in this section. It may seem incredible, but I believe I can keep my fowls absolutely free from lice; at any rate I shall make a strenuous effort to do so. The only difficulty I foresee is in the introduction of new blood, and this I think I can overcome by introducing it through the agency of incubators, raising each year a number of cockerels to take the place of those removed. If I possibly can, I am going to avoid the everlasting fight with vermin, by keeping them off my premises.

My aim eventually is to develop three strains,—1st, a heavy laying strain; 2d, a fertile strain, from which almost every egg laid can be relied upon to produce a chick; 3d, a broiler strain of uniform weight, the chicks weighing uniformly, say two pounds, at ten weeks of age. It may be difficult to accomplish all this, but I think it is worth a trial.

I do not feel able to invest in even a few fine birds to begin with; the process would be too slow, and I have no great confidence in the fine birds. What I want is a good number of eggs with a laying record behind them. With these I can get on. I hope to have a hundred or more pullets in the fall; and as I understand the matter, the eggs are not from the choicest stock, yet they are from choice stock, and their mothers before them were from choice stock. So there must be choice blood in them, which is the important thing.

I am thinking of feeding the chicks ground oats for the first five days, then adding cracked corn to their diet, and occasionally boiled eggs. This is not according to your method, but as I cannot secure a good supply of bread crumbs, and as I have had the best of success with the ground oats—out of one hundred and thirteen chicks hatched I still have one hundred and nine, all in good shape, I shall continue to use the same feed unless

you advise against it. I can get rolled oats, if that would be better, but they seem to like the ground oats best.

With my first hatch I covered the brooder floor with oat chaff; with the latter I used bran, put on about one and one-half inches deep. I have never seen finer chicks.

The poultry in this section brings in more money, twice over, than the wheat, corn and hay crops combined. Everybody is engaged in the business on a small scale; no one on a large scale. About \$500 worth of eggs are shipped from this station (a small one) every Saturday. There is a good deal of fine mongrel stock in the country—Plymouth Rocks, Wyandottes, Brahmas, Leghorns, Minorcas, Black Spanish—with but little if any pure bloods.

I think we have an ideal country for poultry raising—a mountainous region, with good soil, pure water, no swamps, little windy weather, cool summers, comparatively open winters. Stock thrive here with no care at all, and in the dead of winter a flock of thirty hens will live off the table scraps of a family who lives off of two bushels of corn a month and a few pounds of bacon. H.

Makes a Living.

Mr. Editor:—I have been taking your paper, FARM-POULTRY, for three years, and I think it is the poultry paper of the country. I started seven years ago with six hens, and have now three hundred laying hens, which are paying for their keep and my living, and paying the rent of my place, \$85 a year. I have been held back by being obliged to rent, but hope soon to have a place of my own, where I can enlarge my plant, and all the improvements will be my own.

All of my help has come from FARM-POULTRY and my own experience. There is money in the business—there is no doubt about that.

F. D. B.

Owasco, N. Y.

A Woman's Way With Lice.

Mr. Editor:—I see that a great many women are worrying about lice on their chickens. I put a stop to lice troubles at once by gathering up the little ones "biddy" has hatched, in a small box that will hold fifteen comfortably, then I take a flannel cloth well dampened with coal oil, and spread it over the box, covering in the little flock. I leave them this way for ten minutes, then remove the flannel and expose it to heat sufficient to kill the lice clinging to it. I repeat the operation until no lice are to be found on the rag. Then the chicks are all right, and there is nothing for them to do but to start growing for all they are worth. This receipt is tried and true.

Rossville, Ill. Mrs. J. M. ALBRIGHT.

Egg Receivers.

Any of our readers who are thinking of shipping eggs to the Boston market, will do well to read the advertisement of A. M. Smith & Co. in this paper, and write to them before making any shipments.

We can highly commend Smith & Co. in every way, and therefore gladly bring their advertisement to our readers' attention.

PAINT TALKS—XV.

PAINT IN SANITATION.

Since the world has learned that disease is largely a matter of dirt, the importance of paint has vastly increased. We know that fully half the diseases to which the human race is liable are caused by infinitely small microbes, that cannot thrive in quarters that are absolutely clean. This is the meaning of antiseptic surgery, of water filtration, of quarantine during the existence of contagious diseases and of disinfection after their cure.

Any porous or rough surface, such as wall paper, carpets, curtains, etc., affords a lodgment for these unseen workers of evil; and it is for this reason that paint is far preferable to wall paper for the walls and to carpet for the floors of living rooms. If it had no other point of superiority, the fact that it can be washed with cleansing or disinfecting agents would suffice to make it vastly preferable.

No one has yet been able to determine how long the germs in an infected room will retain their virulence, and no one moving into a wall papered house can have any guaranty that he is not exposing himself to infection.

But there is another aspect to this question which is still more strongly in favor of the paint: wall paper and carpets deteriorate, but paint does not. That is to say, the right kind of paint used on the interior of a house ought to last a lifetime. This statement does not apply to lead paints, it is true, because lead paints are unsuited for interior use, since the least trace of sulphur gas discolors them, and the tints made with them spontaneously change color.

But zinc white paints, even if they contain some lead, are practically indestructible for interior use, and a room painted with them can even be fumigated with sulphur without discoloration. Paints based on zinc white are, therefore, the only kind fit for interior use.

I believe that were the public as familiar with the economic and artistic advantages of interior painting all floors would be painted or varnished, and wall paper would be looked upon as relic of our present barbarism.

STANTON DUDLEY.



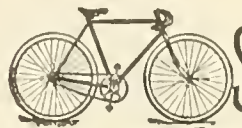
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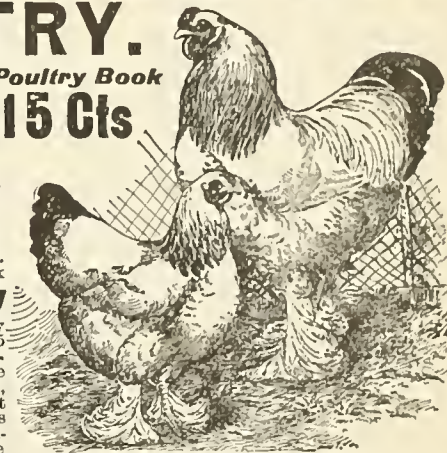
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that you may want to know about poultry and how to make big money with them. It contains over 175 of the latest illustrations, hundreds of valuable recipes, questions and answers, and shows a bird's eye view of the largest and best equipped poultry farm, with the most substantial buildings in the country. It tells how to make hens lay wonderfully. It gives descriptions of 45 of the leading varieties of thoroughbred poultry. Prices the lowest. Contains first prize winnings of our stock where ever shown. Write at once, enclosing 15 cents for one of these mammoth books before all are sold.



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Fowl Fills.

An excellent old deacon, who having won a fine turkey at a charity grab bag raffle, didn't like to tell his severe orthodox wife how he came by it, quietly remarked, as he handed her the fowl, that the *shakers* gave it to him. — *Poultry World*.

Text.

On Monday last, Jabez Humphrey, of Ann Arbor, had a valuable yoke of steers and a large number of hens poisoned, it is supposed, by Paris green. Jabez was inconsolable, and wept like a child over his loss. — *Detroit Post and Tribune*.

Echo.

Against the woodshed he did lean,
And wept as though he'd die;
The neighbors came and tried to glean
The wherefore and the why.
But still hot tears the man would shed,
And sob aloud and sigh,
Nor lifted once his anguished head
Until his wife drew nigh.
Then to her queries, loud he screamed,
"The yoke I've owned three years,
And twenty fowls are Paris-greened."
Then whimpered, "Hens these steers!"
— H. T. SPERRY, in *Hartford Post*.

Hard to Classify.

"Say, Padhrick," whispered Jacobson to his Hibernian friend, "I wonder vot sort of man dot is at the odder end of de loonch counter?" "Begob," replied Pat, eyeing the stranger, "he must be wan av thim new-fangled ducks called Egnostics. A man that will ate bacon on Froiday is nayther Jew nor Christian." — *Buffalo Courier*.

The toughest snake and chicken story comes from Ocala, Fla. A sitting hen, on returning from her dinner to her nest, found that a snake had swallowed three of her eggs. She chased the snake about the woods and killed it, and returned to her nest. Several days afterward a farm hand, while walking in the woods, heard the chirp of young chickens, and, on looking around closely, he discovered three young chickens, and lying near by a large chicken snake with a hole pecked through him. The young chickens had hatched out in the snake, and pecked away until they were free from his skin, which wasn't as tough as the story. — *New Orleans Times*.

Why They Didn't Lay.

Neighbor — What beautiful hens you have, Mrs. Stuckup.

Mrs. Stuckup — Yes, they are all imported fowls.

Neighbor — You don't tell me so. I suppose they lay eggs every day?

Mrs. Stuckup (proudly) — They could do so if they saw proper, but our circumstances are such that my hens are not required to lay eggs every day. — *Boston Journal*.

Only Good for One Thing.

First Boy — Is that hen good for layin' eggs?

Second Boy — No.

Good settin' hen?

No.

Good for raisin' chicks?

No.

What is she good for?

Nothin', only to take prizes at shows. — *Southern Fancier*.

Food and Exercise Combined.

Mrs. Hyde Park — Have you fed the chickens today?

Mr. Hyde Park — Not exactly. I planted some flower seed, though. — *Kansas City Independent*.

Landlady — You say the chicken soup isn't good? Why, I told the cook just how to make it. Perhaps she didn't catch the idea.

Boarder — No; I think it was the chicken she failed to catch. — *Winchester, N. H., Star*.

Funny Fishing.

A Saugus man made a queer catch on Lily pond, Thursday. He provided himself with the proper gear for pickerel fishing, and axe to cut holes in the ice, and a good sized bag in which to bring the fish home. When he returned he had five dead hens in his bag, which he had found frozen into the ice on the pond. — *Lynn Item*.

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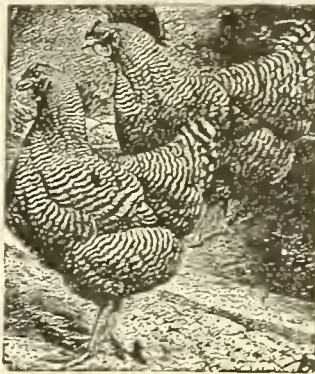
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THIS new, revised and enlarged edition of what has always been recognized as the standard work on poultry is nearly one-third larger than any previous edition, and has been fully brought up to the requirements of the present day. As denoted by the title of the book, most prominence is given to the side of poultry keeping which returns an income. The ways and means by which eggs or poultry can be grown at a profit are discussed in great detail. So many questions are constantly asked about the various breeds and also concerning diseases and their treatment, that these topics have been quite fully considered. The turkey department has been made as complete as possible on account of the increasing interest in that branch of poultry keeping.

The chapter on artificial incubation alone is worth many times the price of the book to anyone engaged in poultry raising as a business. Care of chicks, feeding and care for eggs, or for meat, building coops and houses, caponizing, marketing, warfare against pests, raising waterfowl and ornamental poultry, are described at length. The reference matter and tables are a special feature of the book. Experience of breeders and poultry farmers has been drawn upon freely, resulting in that breadth of view which can be obtained only by comparison of successful methods in actual practice.



Fowls in Natural Colors

In addition, we have at great expense added a new and most attractive feature; namely, reproductions of 19 named varieties of fowls, geese and ducks in their NATURAL COLORS. Besides these a number of breeds of fowls and pigeons are shown in their natural colors on the first page cover. This cover is a work of art, and would be a credit to a book costing ten times as much as this. Nearly all of the illustrations of the breeds show one of each sex; altogether there are, therefore, 37 pictures of chickens and nine of ducks, geese and pigeons exactly true to nature.

It is a substantially bound volume of 352 pages and 154 illustrations. The teachings of the work are not of a local character, but are adapted for all localities and climates. To the novice or the experienced poultryman, it is of inestimable value, teaching of the production of eggs, broilers, table or market poultry. Notwithstanding the increased size and the beautiful color illustrations and cover, the price of "Profits in Poultry" is the same as before, 50 cents postpaid. The book is substantially bound in illuminated paper cover.

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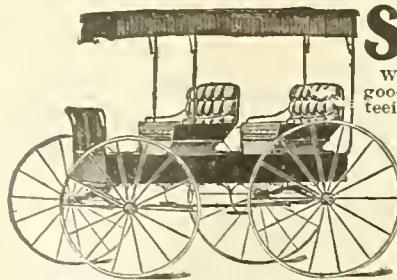
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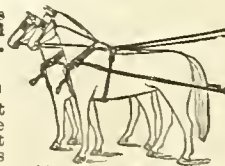
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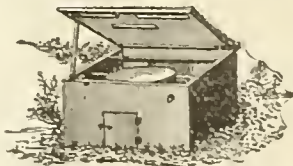


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